

Name of Permitted Facility: IPL - Sixth Street Generating Station

Air Quality Operating Permit Number: 98-TV-022R1-M001
Expiration Date: October 23, 2011

Responsible Official

Title: Plant Manager

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For the Director of the Department of Natural Resources

Douglas A. Campbell, Supervisor of Air Operating Permits Section

Date _____

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Abbreviations

acfm.....	actual cubic feet per minute
APCO.....	Air Pollution Control Officer
CFR.....	Code of Federal Regulations
°F.....	degrees Fahrenheit
EIQ.....	emissions inventory questionnaire
gr./dscf.....	grains per dry standard cubic foot
gr./100 cf.....	grains per one hundred cubic feet
IAC.....	Iowa Administrative Code
IDNR.....	Iowa Department of Natural Resources
LCPH.....	Linn County Public Health
LCO.....	Linn County Ordinance
MVAC.....	motor vehicle air conditioner
NSPS.....	New Source Performance Standards
ppmv.....	parts per million by volume
lb./hr.....	pounds per hour
lb./MMBtu.....	pounds per million British thermal units
scfm.....	standard cubic feet per minute
TPY.....	tons per year
USEPA.....	United States Environmental Protection Agency

Pollutants

PM.....	particulate matter
PM ₁₀	particulate matter ten microns or less in diameter
SO ₂	sulfur dioxide
NO _x	nitrogen oxides
VOC.....	volatile organic compounds
CO.....	carbon monoxides
HAP.....	hazardous air pollutants

I. Facility Description and Equipment List

Facility Name: IPL - Sixth Street Generating Station, Cedar Rapids

Permit Number: 98-TV-022R1-M001

Facility Description: Electric Services

Equipment List

Emission Point Number	Emission Unit Number	Emission Unit Description	LCPH ATI / PTO Numbers
102	102-102	Fly Ash Silo	3148 / 2983
104	104-104	3/4 & 9/10 Boiler Coal Bunker	- / -
105	105-105	5/6 & 7/8 Boiler Coal Bunker	- / -
110	110-110	Boiler 3/4, Dry Bottom Pulverized Coal Unit	4938 / 0
111	111-111	Boiler 5/6, Dry Bottom Pulverized Coal Unit	4939 / 0
112	112-112	Boiler 7/8, Dry Bottom Pulverized Coal Unit	4940 / 0
113	113-113	Boiler 9/10, Dry Bottom Pulverized Coal Unit	4941 / 0
501	501-501	Rail Car Unloading	- / -
502	502-502	Coal Crushing	- / -
700	700-700	Fly Ash Truck Loading	- / -

Insignificant Equipment List

Insignificant Emission Unit Number	Insignificant Emission Unit Description
48	Vapor Extraction Off #8 Turb. Oil Tank
58	Vapor Extraction Off #7 Turb. Oil Tank
59	Vapor Extraction Off #4 Turb. Oil Tank
61-61 ⁽¹⁾	Acid Tank (LCPH ATI 3962 / PTO 3869)
62	Caustic Reclaim Tank (3% Sodium Hydroxide in Water)
64	Caustic Tank Vent (50% Sodium Hydroxide in Water)
67-67 ⁽¹⁾	Cyclohexamine Tank (LCPH ATI 3104 / PTO 2934)
72	Safety Valve on SO ₂ Regulator
78	Natural Gas Vent
79	Natural Gas Vent
92	Natural Gas Vent
93	Maintenance Welding
94	Parts Cleaning
95	Maintenance Sandblasting
114-114 ⁽¹⁾	#2 Fuel Oil Storage Tank (LCPH ATI 3105 / PTO 2935)
115-115	Emergency Generator
400-400	Coal Yard Fuel Oil Tank (1,100 gallons)
500-500	Bulk Loading of Bottom Ash from Ash Pond

¹ The construction permit associated with this emission unit does not contain any specific terms or conditions, therefore it qualifies as an insignificant activity per rule 567 IAC 22.103.

II. Plant-Wide Conditions

Facility Name: IPL - Sixth Street Generating Station, Cedar Rapids

Permit Number: **98-TV-022R1-M001**

Permit conditions are established in accord with 567 Iowa Administrative Code rule 22.108

Permit Duration

The term of this permit is: less than 5 years

Commencing on: October 24, 2006

Ending on: October 23, 2011

Amendments, modifications and reopening of the permit shall be obtained in accordance with 567 Iowa Administrative Code rules 22.110 - 22.114. Permits may be suspended, terminated, or revoked as specified in 567 Iowa Administrative Code Rules 22.115.

Plant-Wide Emission Limits

The atmospheric emissions from the plant as a whole shall not exceed the following:

Pollutant: Sulfur Dioxide (SO₂)

Emission Rate: 2921.46 tons/yr, 667 lb/hr (84 grams/sec) on a 24-hour average basis

Authority for Requirement: Administrative Consent Order No. 97-AQ-20

Facility Recordkeeping:

IPL shall maintain hourly and twenty-four hour rolling average records for its Sixth Street Generating Station which will verify compliance with the twenty-four hour rolling average SO₂ emission limit. These records shall include the data required pursuant to Administrative Consent Order No. 97-AQ-20 and 40 CFR Part 75 for Continuous Emissions Monitoring.

Authority for Requirement: Administrative Consent Order No. 97-AQ-20

Unless specified otherwise in the Source Specific Conditions, the following limitations and supporting regulations apply to all emission points at this plant:

Opacity (visible emissions): 20% opacity

Authority for Requirement: LCO 10.7

Sulfur Dioxide (SO₂): 500 parts per million by volume

Authority for Requirement: 567 IAC 23.3(3)"e"

LCO 10.12(2)

Particulate Matter (state enforceable only)²:

No person shall cause or allow the emission of particulate matter from any source in excess of the emission standards specified in this chapter, except as provided in 567 – Chapter 24. For sources constructed, modified or reconstructed after July 21, 1999, the emission of particulate matter from any process shall not exceed an emission standard of 0.1 grain per dry standard cubic foot of exhaust gas, except as provided in 567 – 21.2(455B), 23.1(455B), 23.4(455B) and 567 – Chapter 24.

For sources constructed, modified or reconstructed prior to July 21, 1999, the emission of particulate matter from any process shall not exceed the amount determined from Table I, or amount specified in a permit if based on an emission standard of 0.1 grain per standard cubic foot of exhaust gas or established from standards provided in 23.1(455B) and 23.4(455B).

Authority for Requirement: 567 IAC 23.3(2)"a" (as revised 7/21/1999)

Particulate Matter (federally enforceable)³:

The emission of particulate matter from any process shall not exceed the amount determined from Table I, except as provided in 567 — 21.2(455B), 23.1(455B), 23.4(455B) and 567 — Chapter 24. If the director determines that a process complying with the emission rates specified in Table I is causing or will cause air pollution in a specific area of the state, an emission standard of 0.1 grain per standard cubic foot of exhaust gas may be imposed.

Authority for Requirement: 567 IAC 23.3(2)"a" (prior to 7/21/1999)

Particulate Matter: No person shall permit, cause, suffer or allow the emission of particulate matter into the atmosphere in any one hour from any emission point from any process equipment at a rate in excess of that specified in Table I for the process weight rate allocated to such emission point. The emission standards in LCO 10.9 (1)"a" shall apply and those specified in LCO 10.8 and 10.9 and Table I shall not apply to each process of the types listed in those sections, with the following exception: whenever the compliance status, history of operations, ambient air quality in the vicinity, or the type of control equipment utilized, would warrant maximum control, the Air Pollution Control Officer may enforce 0.1 grain per standard cubic foot of exhaust gas, or Table I of this section, whichever would result in the lowest allowable emission rate.

Authority for Requirement: LCO 10.9(1)

Fugitive Dust: Attainment and Unclassified Areas - No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered repaired or demolished, with the exception of farming operations or dust generated by ordinary travel on unpaved public roads, without taking reasonable precautions to prevent particulate matter in quantities sufficient to create a nuisance, as defined in Iowa Code section 657.1, from becoming airborne. All persons, with the above exceptions, shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate. The highway authority shall be responsible for taking corrective action in those cases where said authority has received complaints of or has actual knowledge of dust conditions which require abatement

² Pending approval into Iowa's State Implementation Plan (SIP), paragraph 567 IAC 23.3(2)"a" (as revised 7/21/1999) is considered *state enforceable only*.

³ Paragraph 567 IAC 23.3(2)"a" (prior to 7/21/1999) is the general particulate matter emission standard currently in the Iowa SIP.

pursuant to this subrule. Reasonable precautions may include, but not limited to, the following procedures.

1. Use, where practical, of water or chemicals for control of dusts in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land.
2. Application of suitable materials, such as but not limited to asphalt, oil, water or chemicals on unpaved roads, material stockpiles, race tracks and other surfaces which can give rise to airborne dusts.
3. Installation and use of containment or control equipment, to enclose or otherwise limit the emissions resulting from the handling and transfer of dusty materials, such as but not limited to grain, fertilizers or limestone.
4. Covering at all times when in motion, open-bodied vehicles transporting materials likely to give rise to airborne dusts.
5. Prompt removal of earth or other material from paved streets or to which earth or other material has been transported by trucking or earth-moving equipment, erosion by water or other means.

Authority for Requirement: 567 IAC 23.3(2)"c"
LCO 10.13

Compliance Plan

The owner/operator shall comply with the applicable requirements listed below. The compliance status is based on information provided by the applicant.

Unless otherwise noted in Section III of this permit, IPL - Sixth Street Generating Station is in compliance with all applicable requirements and shall continue to comply with all such requirements. For those applicable requirements which become effective during the permit term, IPL - Sixth Street Generating Station shall comply with such requirements in a timely manner.

Authority for Requirement: 567 IAC 22.108(15)

III. Emission Point-Specific Conditions

Facility Name: IPL / Alliant Energy / Sixth Street Generating Station, Cedar Rapids
Permit Number: **98-TV-022R1-M001**

Emission Point ID Number: 102

Associated Equipment

Associated Emission Unit ID Numbers: 102-102
Emissions Control Equipment ID Number: CE5
Emissions Control Equipment Description: Bag filter

Emission Unit vented through this Emission Point: 102-102
Emission Unit Description: Fly Ash Silo
Raw Material/Fuel: Fly Ash
Rated Capacity: 80.54 ton/hr

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limits: 5 %
Authority for Requirement: LCPH ATI 3148 / PTO 2983

Pollutant: PM-10
Emission Limits: 0.05 lb/hr, 0.30 tpy
Authority for Requirement: LCPH ATI 3148 / PTO 2983

Pollutant: Particulate Matter
Emission Limits: 0.05 lb/hr, 0.30 tpy
Authority for Requirement: LCPH ATI 3148 / PTO 2983

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Stack testing is not required at this time.

Opacity Monitoring:

Visible emissions shall be observed on a weekly basis to ensure that none occur when the emission unit on this emission point is at or near full capacity. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity (>5 %) is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from observation of the violation.

If weather conditions prevent the observer from conducting an observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Maintain a written record of the observation and any action resulting from the observation for a minimum of five years.

Authority for Requirement: 567 IAC 22.108(14)

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Compliance Assurance Monitoring (CAM) Plan Required? Yes ☐ No ☒

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six (6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 104, 105, 501, 502, 700**Table 1. Associated Equipment.**

EP	EU	EU Description	Raw Material/Fuel	Rated Capacity
104	104-104	3/4 and 9/10 Boiler Coal Bunker	Coal	200 ton/hr
105	105-105	5/6 and 7/8 Boiler Coal Bunker	Coal	200 ton/hr
501	501-501	Rail Car Unloading	Coal	200 ton/hr
502	502-502	Coal Crushing	Coal	200 ton/hr
700	700-700	Fly Ash Truck Loading	Fly Ash	60 ton/hr

Applicable Requirements**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Fugitive Dust

No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered repaired or demolished with the exception of farming operations or dust generated by ordinary travel on unpaved public roads, without taking reasonable precautions to prevent particulate matter as defined in Iowa Code section 657.1, from becoming airborne. All persons, with the above exceptions, shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate.

Authority for Requirement: LCO 10.13

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Compliance Assurance Monitoring (CAM) Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 110

Associated Equipment

Associated Emission Unit ID Numbers: 110-110

Emissions Control Equipment ID Number: CE1

Emissions Control Equipment Description: Electrostatic Precipitator

Continuous Emissions Monitors ID Numbers: ME1, ME1A, ME1B, ME1C, ME1D

Emission Unit vented through this Emission Point: 110-110

Emission Unit Description: Boiler 3/4, Dry Bottom Pulverized Coal Unit

Raw Material/Fuel: Coal, Fuel Oil, Natural Gas, Facility-Derived Waste¹

Rated Capacity: 304 MMBtu/hr

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limits: 20 %

Authority for Requirement: LCPH ATI 4938 / PTO 0
State of Iowa PSD Permit #02-A-403-P
LCO 10.7

Pollutant: Particulate Matter

Emission Limits: 0.1946 lb/MMBtu

Authority for Requirement: LCPH ATI 4938 / PTO 0
State of Iowa PSD Permit #02-A-403-P
LCO 10.8(1)"c"

Pollutant: Sulfur Dioxide (SO₂)

Emission Limits: 667 lb/hr (84 grams/sec) combined total for EP110, EP111, EP112, and EP113 on a 24-hour rolling average basis.

Authority for Requirement: LCPH ATI 4938 / PTO 0
State of Iowa PSD Permit #02-A-403-P
Administrative Consent Order No. 97-AQ-20

Pollutant: Sulfur Dioxide (SO₂)

Emission Limits: 5 lb/MMBtu when burning solid fuels

Authority for Requirement: LCO 10.12(1)"a"

Pollutant: Sulfur Dioxide (SO₂)
Emission Limits: 1.5 lb/MMBtu when burning liquid fuels
Authority for Requirement: LCO 10.12(1)"b"

Pollutant: Sulfur Dioxide (SO₂)
Emission Limits: 500 ppmv when burning gaseous fuels
Authority for Requirement: 567 IAC 23.3(3)"e"
LCO 10.12(2)

Emission Limits: Sulfur Dioxide Allowances
Authority for Requirement: 567 IAC 22.108(7)
Attached Phase II Acid Rain Permit

Pollutant: Nitrogen Oxide (NO_x)
Emission Limits: See attached Phase II Acid Rain Permit
Authority for Requirement: 567 IAC 22.125(4) (Attached Phase II Acid Rain Permit)
40 CFR Part 76

¹Facility-derived waste includes 6000 gallons per year used oil; one 55-gallon drum per month used oil adsorbents; 10,000 gallons per year oily water; 8000 gallons once every 5-7 years turbine cleaning waste; 300,000 gallons once every 5-7 years boiler cleaning waste; 1000 gallons per year oil/water separator sludge; 25 cubic yards once every 5 years ion exchange resin; and 10,000 gallons per year water-based parts washer. The material will be either injected directly into the boiler or added directly to the coal as it enters the reclaim hopper. Any material added directly to the coal must be a mixture of the material and #2 fuel oil. It is required that at least 50% of the mixture is #2 fuel oil. Records are to be kept that show how much material has been injected during the year. MSDSs must be available upon request. Records are to be kept of how much material and how much #2 fuel oil is added to the coal each time.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Control Device:

An electrostatic precipitator shall be used to control particulate matter emissions. The control equipment shall be maintained properly and operated at all times the air pollution source is in operation. All appropriate probes, monitors and gauges needed to measure the parameters outlined in "Operating Condition Monitoring and Recordkeeping" shall be installed, maintained and operating during the operation of the emission unit and control device at all times.

Authority for Requirement: LCPH ATI 4938 / PTO 0

NSPS and NESHAP Applicability:

- This unit is not subject to the New Source Performance Standards (NSPS).
- This unit is not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP).

Authority for Requirement: LCPH ATI 4938 / PTO 0
State of Iowa PSD Permit #02-A-403-P

Operating Limits:

- A. For the next year(s) during which this project takes place, and the subsequent five (5) years after the project is complete, the owner or operator shall calculate and record the plantwide emissions (calendar year) for PM, PM₁₀, NO_x and SO₂. The owner or operator shall notify the LCPH APCO and IDNR within ten (10) days following March 31st of the following year should the calculated annual plantwide emission total exceed any of the following:

PM	260 tpy
PM ₁₀	220 tpy
SO ₂	2,200 tpy
NO _x	1,760 tpy

- B. Coal combusted in this unit shall have a maximum sulfur content of 1.0% by weight.
C. Fuels combusted in this unit shall be coal, natural gas, and fuel oil.
D. This unit shall not exceed a load of 165,000 lbs of steam per hour generated by coal combustion.
E. Any additional steam production above 165,000 lbs/hr shall be accomplished using natural gas only.

Authority for Requirement: LCPH ATI 4938 / PTO 0
State of Iowa PSD Permit #02-A-403-P

Operating Condition Monitoring and Recordkeeping:

All records as required by this permit shall be kept on site for a minimum of five (5) years and shall be available for inspection by the Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

- A. The owner or operator shall keep records of the date and type of fuel combusted in the unit.
B. Coal sulfur content for each train load may be demonstrated by fuel supplier certification. Such certification shall include the name of the coal supplier and the location of the coal when the sample was collected for analysis, the results of the coal analysis, and the methods used to determine the coal properties.
C. The owner or operator shall calculate and record the annual amount of PM, PM₁₀, SO₂, and NO_x emitted plantwide for the next five complete years after this project is complete.
D. The owner or operator shall maintain hourly and twenty-four hour average SO₂ records which will verify compliance with the twenty-four hour rolling average SO₂ limit required in Administrative Consent Order 97-AQ-20.
E. The owner or operator shall keep records on baseline coal usage and pounds of steam generated for this unit. In the event of increased steam output, coal usage shall be documented to pre-event levels.

Authority for Requirement: LCPH ATI 4938 / PTO 0
State of Iowa PSD Permit #02-A-403-P

Continuous Emission Monitoring:

SO₂, NO_x and opacity continuous emission monitors (CEMs) are required. These shall be operated, calibrated, and recorded according to the specifications in 40 CFR 75.

Authority for Requirement: LCPH ATI 4938 / PTO 0

State of Iowa PSD Permit #02-A-403-P

Quarterly Report Requirements:

The following information shall be submitted to this department by the 30th of each month for the previous quarter (January 30, April 30, July 30 and October 30).

- A. CEM report for Opacity.
- B. Monthly coal sulfur certification analyses for the quarter.
- C. Any periods the unit operated above 165,000 lbs of steam per hour while combusting coal only. Include duration, circumstances, and fuel usage related to the increased steam output.

Authority for Requirement: LCPH ATI 4938 / PTO 0

Operating Conditions:

- 1. This unit shall not exceed a load of 165,000 lbs of steam per hour generated by coal combustion.
- 2. If in the case of an emergency and increased steam is needed from this unit, all extra generated steam shall be accomplished using natural gas combustion.
- 3. Accurate records shall be kept on baseline coal usage and lbs of steam generated for this unit. In the event of increased steam output, coal usage shall be documented to pre-emergency levels.
- 4. In the event this unit is operated above 165,000 lbs of steam per hour, notification shall be submitted to the Linn County Health Department Air Pollution Control Division as soon as practical. Notification shall include: duration of increased steam output, explanation of circumstances which caused the need for extra steam from this unit, and documentation of coal and gas usage, before, during and after the emergency usage.

Authority for Requirement: September 30, 1993 letter from LCHD

Other Conditions:

Continuous emission monitoring and data collection equipment capable of recording total site hourly and twenty-four hour rolling average SO₂ emission information shall be installed and operational.

Authority for Requirement: Administrative Consent Order No. 97-AQ-20

Maintain hourly and twenty-four hour rolling average SO₂ records for Sixth Street Generating Station which will verify compliance with the twenty-four hour rolling average SO₂ emission limit. The records shall include the data required in the previous paragraph and in 40 CFR 75 for Continuous Emissions Monitoring.

Authority for Requirement: Administrative Consent Order No. 97-AQ-20

Emission Point Characteristics

This emission point shall conform to the specifications listed below.

Stack Height (ft, from ground): 198

Discharge Style: Vertical, unobstructed

Stack Opening (inches, diameter): 120

Exhaust Temperature (°F): 300

Exhaust Flowrate (acfm): 167,450

Authority for Requirement: LCPH ATI 4938 / PTO 0

State of Iowa PSD Permit #02-A-403-P

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Stack Testing:

Pollutant - Particulate Matter

1st Stack Test demonstrated compliance on April 5, 2006

2nd Stack Test to be Completed between – after 2.5 years and before 3.5 years

Test Method - Iowa Compliance Sampling Manual

Authority for Requirement - State of Iowa PSD Permit #02-A-403-P

567 IAC 22.108(3)

Continuous Emissions Monitoring:

Pollutant:	Opacity
Operational Specifications:	40 CFR 75
Date of Initial System Calibration & Quality Assurance:	6/17/1980
Ongoing System Calibration/Quality Assurance:	40 CFR 75
Reporting & Record keeping:	40 CFR 75. Submit all reports and petitions required by 40 CFR 75 to the Iowa DNR in order to demonstrate compliance with continuous emissions monitoring and the 20% opacity (visible emissions) limit.
Authority for Requirement:	567 IAC 25.1(1) 567 IAC 25.2 567 IAC 23.3(2)"d" 567 IAC 22.108(4) 567 IAC 22.108(15)

Pollutant:	Sulfur Dioxide (SO ₂)
Operational Specifications:	40 CFR 75
Date of Initial System Calibration & Quality Assurance:	4/12/2001
Ongoing System Calibration/Quality Assurance:	40 CFR 75
Reporting & Record keeping:	40 CFR 75. Submit all reports and petitions required by 40 CFR 75 to the Iowa DNR in order to demonstrate compliance with continuous emissions monitoring under the acid rain program and the 5 lb/MMBtu SO ₂ emission limit.
Authority for Requirement:	567 IAC 25.2 567 IAC 23.3(3)"a" 567 IAC 22.108(4) 567 IAC 22.108(15)

Pollutant:	Nitrogen Oxides (NO _x)
Operational Specifications:	40 CFR 75
Date of Initial System Calibration & Quality Assurance:	4/12/2001
Ongoing System Calibration/Quality Assurance:	40 CFR 75
Reporting & Record keeping:	40 CFR 75. Submit all reports and petitions required by 40 CFR Part 75 to the Iowa DNR in order to demonstrate compliance with continuous emissions monitoring under the acid rain program.
Authority for Requirement:	567 IAC 25.2 567 IAC 22.108(4) 567 IAC 22.108(15)

Other Parameters:

Pollutant:	Carbon Dioxide (CO ₂)
Operational Specifications:	40 CFR 75
Date of Initial System Calibration & Quality Assurance:	4/12/2001
Ongoing System Calibration/Quality Assurance:	40 CFR 75
Reporting & Record keeping:	40 CFR 75. Submit all reports and petitions required by 40 CFR Part 75 to the Iowa DNR in order to demonstrate compliance with continuous emissions monitoring under the acid rain program.
Authority for Requirement:	567 IAC 25.2

	567 IAC 22.108(4) 567 IAC 22.108(15)
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Pollutant:	Flow
Operational Specifications:	40 CFR 75
Date of Initial System Calibration & Quality Assurance:	4/12/2001
Ongoing System Calibration/Quality Assurance:	40 CFR 75
Reporting & Record keeping:	40 CFR 75. Submit all reports and petitions required by 40 CFR Part 75 to the Iowa DNR in order to demonstrate compliance with continuous emissions monitoring under the acid rain program.
Authority for Requirement:	567 IAC 25.2 567 IAC 22.108(4) 567 IAC 22.108(15)

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the tests shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7).

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Compliance Assurance Monitoring (CAM) Plan Required? Yes ☒ No ☐

Authority for Requirement: 567 IAC 22.108(3)

Compliance Assurance Monitoring Plan Electrostatic Precipitator for PM / PM-10 Control

Background

I. Emissions Unit: EP110

A. Description: Boiler 3/4, Dry Bottom Pulverized Coal Unit

Identification: EU110-110

Facility: IPL - Sixth Street Generating Station

B. Applicable Regulation, Emission Limit, and Monitoring Requirements:

Regulation No.:

LCPH ATI 4938 / PTO 0

State of Iowa PSD Permit #02-A-403-P

Particulate Emission Limit:	0.1946 lb/MMBtu PM
Opacity Emission Limit:	20%
Current Monitoring Requirements:	Stack Testing Continuous Opacity Monitoring System (COMS) Secondary Power (Watt) Electrostatic Precipitator

C. Control Technology:

II. Monitoring Approach

1. Indicator	Opacity of ESP exhaust (stack)	Secondary Power (Watt)
2. Measurement Approach	COMs in ESP exhaust (stack)	Secondary Power (Watt) is monitored not less than 4 (every 15 minute) data points every hour
3. Indicator Range	<p>An excursion is defined as the hourly block average opacity exceeds 20% except during a period of startup, shutdown, or cleaning of control equipment.</p> <p>Excursions trigger an inspection, corrective action, and a reporting requirement at annual or semi annual reports.</p>	<p>An excursion is defined as the hourly block average of the ESP secondary power is out of the ranges below:</p> <p>> 90 Watts (Inlet) > 75 Watts (Middle) > 250 Watts (Outlet)</p> <p>Excursions trigger an inspection, corrective action, and a reporting requirement at annual or semi annual reports</p>

4. Performance Criteria	Data Representativeness	Install the COMs at a representative location in the ESP exhaust per 40 CFR 60, Appendix B, Performance Specification 1 (PS-1)	<p>Plant computer will take secondary power data not less than four data points (every 15 minute) every hour and keep the records.</p> <p>In case of computer and/or software malfunction, manual readings of secondary voltage and amperage readings will be taken once per hour and hourly secondary power(watts) will be calculated in 48 hours. Each data point will represent entire hour block.</p>
	QA/QC Practices /Criteria	Install and evaluate COMs per PS-1. The continuous opacity monitor will be automatically calibrated for zero and span adjustments daily.	The voltage and amperage gauges, which are for power (Watt) monitoring, will be calibrated, maintained, and operated according to the manufacture specifications.
	Monitoring Frequency	Monitor opacity of the ESP exhaust continuously (every 10 seconds)	<p>Plant computer will monitor secondary power not less than four data points (every 15 minutes) per hour.</p> <p>In case of computer and/or software malfunction, manual readings of secondary voltage and amperage readings will be taken once per hour and hourly secondary power(watts) will be calculated in 48 hours. Each data point will represent entire hour block.</p>

	Data Collection Procedures	Set up the data acquisition system (DAS) to retain all 6 minute average and hourly average opacity data.	Plant computer will monitor and record secondary power not less than 4 data points (every 15 minutes) every hour and keep the record for 5 years and available upon request. In case of computer and/or software malfunction, manual readings of secondary voltage and amperage readings will be taken once per hour and hourly secondary power(watts) will be calculated in 48 hours. Each data point will represent entire hour block.
	Averaging Period	Use the 10-second opacity data to calculate 6 minute average. Use the 6 minute average to calculate the hourly block average opacity	Once hourly block average secondary power (Watt) is out of range based on computer indication or one manual out of range point, an excursion is triggered.

III. Quality Improvement Plan (QIP)

A Quality Improvement Plan (QIP) will be required if an accumulation of excursions of either the opacity indicator or the power indicator exceeds 5 percent of the boiler's normal operating time for a 6-month reporting period.

Emission Point ID Number: 111

Associated Equipment

Associated Emission Unit ID Numbers: 111 -111

Emissions Control Equipment ID Number: CE2

Emissions Control Equipment Description: Electrostatic Precipitator, Low NO_x burners

Continuous Emissions Monitors ID Numbers: ME2, ME2A, ME2B, ME2C, ME2D

Emission Unit vented through this Emission Point: 111

Emission Unit Description: Boiler 5/6, Dry Bottom Pulverized Coal Unit

Raw Material/Fuel: Coal, Fuel Oil, Natural Gas, Facility-Derived Waste¹

Rated Capacity: 304 MMBtu/hr

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 20 %

Authority for Requirement: LCPH ATI 4939 / PTO 0
State of Iowa PSD Permit #02-A-404-P
LCO 10.7

Pollutant: PM-10

Emission Limit(s): 49.22 lb/hr²

Authority for Requirement: LCPH ATI 4939 / PTO 0
State of Iowa PSD Permit #02-A-404-P

Pollutant: Particulate Matter

Emission Limit(s): 0.1946 lb/MMBtu

Authority for Requirement: LCPH ATI 4939 / PTO 0
State of Iowa PSD Permit #02-A-404-P
LCO 10.8(1)"c"

Pollutant: Particulate Matter

Emission Limit(s): 49.22 lb/hr²

Authority for Requirement: LCPH ATI 4939 / PTO 0
State of Iowa PSD Permit #02-A-404-P

Pollutant: Sulfur Dioxide (SO₂)

Emission Limits: 667 lb/hr (84 grams/sec) combined total for EP110, EP111, EP112, and EP113 on a 24-hour rolling average basis.

Authority for Requirement: LCPH ATI 4939 / PTO 0
State of Iowa PSD Permit #02-A-404-P
Administrative Consent Order No. 97-AQ-20

Pollutant: Sulfur Dioxide (SO₂)

Emission Limits: 5 lb/MMBtu when burning solid fuels

Authority for Requirement: LCO 10.12(1)"a"

Pollutant: Sulfur Dioxide (SO₂)

Emission Limits: 1.5 lb/MMBtu when burning liquid fuels

Authority for Requirement: LCO 10.12(1)"b"

Pollutant: Sulfur Dioxide (SO₂)

Emission Limits: 500 ppmv when burning gaseous fuels

Authority for Requirement: 567 IAC 23.3(3)"e"
LCO 10.12(2)

Pollutant: Sulfur Dioxide (SO₂)

Emission Limits: Sulfur Dioxide Allowances

Authority for Requirement: 567 IAC 22.108(7)
Attached Phase II Acid Rain Permit

Pollutant: Nitrogen Oxide (NO_x)

Emission Limit(s): 0.44 lb/MMBtu³

Authority for Requirement: LCPH ATI 4939 / PTO 0
State of Iowa PSD Permit #02-A-404-P

Pollutant: Nitrogen Oxide (NO_x)

Emission Limits: See attached Phase II Acid Rain Permit

Authority for Requirement: 567 IAC 22.125(4) (Attached Phase II Acid Rain Permit)
40 CFR Part 76

Pollutant: Carbon Monoxide (CO)

Emission Limit(s): 0.645 lb/MMBtu⁴

Authority for Requirement: LCPH ATI 4939 / PTO 0
State of Iowa PSD Permit #02-A-404-P

¹Facility-derived waste includes 6000 gallons per year used oil; one 55-gallon drum per month used oil adsorbents; 10,000 gallons per year oily water; 8000 gallons once every 5-7 years turbine cleaning waste; 300,000 gallons once every 5-7 years boiler cleaning waste; 1000 gallons per year oil/water separator sludge; 25 cubic yards once every 5 years ion exchange resin; and 10,000 gallons per year water-based parts washer. The material will be either injected directly into the boiler or added directly to the coal as it enters the reclaim hopper. Any material added

directly to the coal must be a mixture of the material and #2 fuel oil. It is required that at least 50% of the mixture is #2 fuel oil. Records are to be kept that show how much material has been injected during the year. MSDSs must be available upon request. Records are to be kept of how much material and how much #2 fuel oil is added to the coal each time.

²To avoid being an NSPS modification.

³Determined on a 30-day rolling average basis – pollution control project

⁴For PSD insignificant impact.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Control Device:

An electrostatic precipitator shall be used to control particulate matter emissions. Low-NO_x burners shall be installed to control NO_x emissions. The control equipment shall be maintained properly and operated at all times the air pollution source is in operation. All appropriate probes, monitors and gauges needed to measure the parameters outlined in "Operating Condition Monitoring and Recordkeeping" shall be installed, maintained and operating during the operation of the emission unit and control device at all times.

Authority for Requirement: LCPH ATI 4939 / PTO 0

NSPS and NESHAP Applicability:

- This unit is not subject to the New Source Performance Standards (NSPS).
- This unit is not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP).

Authority for Requirement: LCPH ATI 4939 / PTO 0

State of Iowa PSD Permit #02-A-404-P

Operating Limits:

- A. For the next year(s) during which this project takes place, and the subsequent five (5) years after the project is complete, the owner or operator shall calculate and record the plantwide emissions (calendar year) for PM, PM-10, NO_x, and SO₂. The owner or operator shall notify the LCPH APCO and IDNR within ten (10) days following March 31st of the following year should the calculated annual plantwide emission total exceed any of the following:

PM	260 tpy
PM10	220 tpy
SO ₂	2,200 tpy
NO _x	1,760 tpy

- B. Coal combusted in this unit shall have a maximum sulfur content of 1.0% by weight.

- C. Fuels combusted in this unit shall be coal, natural gas, and fuel oil.

Authority for Requirement: LCPH ATI 4939 / PTO 0

Operating Condition Monitoring and Recordkeeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

- A. The owner or operator shall keep records of the date and type of fuel combusted in this unit.

- B. Coal sulfur content for each train load may be demonstrated by fuel supplier certification. Such certification shall include the name of the coal supplier and the location of the coal when the sample was collected for analysis, the results of the coal analysis, and the methods used to determine the coal properties.
- C. The owner or operator shall calculate and record the annual amount of PM, PM₁₀, SO₂, and NO_x emitted plantwide for the next five complete years after this project is complete.
- D. The owner or operator shall maintain hourly and twenty-four hour average SO₂ records which will verify compliance with the twenty-four hour rolling average SO₂ limit required in Administrative Consent Order 97-AQ-20.
- E. The owner or operator shall maintain hourly and thirty day rolling average NO_x records. A new rolling 30-day average shall be calculated each operating day for the preceding 30 operating days.

Authority for Requirement: LCPH ATI 4939 / PTO 0

Continuous Emission Monitoring:

SO₂, NO_x, and opacity continuous emission monitors (CEMs) are required. These shall be operated, calibrated, and recorded according to the specifications in 40 CFR 75.

Authority for Requirement: LCPH ATI 4939 / PTO 0

Quarterly Report Requirements:

The following information shall be submitted to this department by the 30th of each month for the previous quarter (January 30, April 30, July 30, and October 30).

- A. Opacity CEM report
- B. Monthly coal sulfur certification analyses

Authority for Requirement: LCPH ATI 4939 / PTO 0

Operating Conditions:

Continuous emission monitoring and data collection equipment capable of recording total site hourly and twenty-four hour rolling average SO₂ emission information shall be installed and operational.

Authority for Requirement: Administrative Consent Order No. 97-AQ-20

Maintain hourly and twenty-four hour rolling average SO₂ records for Sixth Street Generating Station which will verify compliance with the twenty-four hour rolling average SO₂ emission limit. The records shall include the data required in the previous paragraph and in 40 CFR 75 for Continuous Emissions Monitoring.

Authority for Requirement: Administrative Consent Order No. 97-AQ-20

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height (ft, from ground): 198

Discharge Style: Vertical, unobstructed

Stack Opening (inches, diameter): 120

Exhaust Temperature (°F): 300

Exhaust Flowrate (acfm): 147,170

Authority for Requirement: LCPH ATI 4939 / PTO 0

State of Iowa PSD Permit #02-A-404-P

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Stack Testing:

Pollutant - Particulate Matter

1st Stack Test demonstrated compliance on April 12, 2006

2nd Stack Test to be Completed between – after 2.5 years and before 3.5 years*Test Method -

Iowa Compliance Sampling Manual

Authority for Requirement - LCPH ATI 4939 / PTO 0

State of Iowa PSD Permit #02-A-404-P

*567 IAC 22.108(3)

Pollutant – Carbon Monoxide

1st Stack Test demonstrated compliance on April 11, 2006

Test Method – 40 CFR 60, Appendix A, Method 10

Authority for Requirement – LCPH ATI 4939 / PTO 0

State of Iowa PSD Permit #02-A-404-P

Continuous Emissions Monitoring:

Pollutant:	Opacity
Operational Specifications:	40 CFR 75
Date of Initial System Calibration & Quality Assurance:	7/18/1980
Ongoing System Calibration/Quality Assurance:	40 CFR 75
Reporting & Record keeping:	40 CFR 75. Submit all reports and petitions required by 40 CFR 75 to the Iowa DNR in order to demonstrate compliance with continuous emissions monitoring

	and the 20% opacity (visible emissions) limit.
Authority for Requirement:	567 IAC 25.1(1) 567 IAC 25.2 567 IAC 23.3(2)"d" 567 IAC 22.108(4) 567 IAC 22.108(15)

Pollutant:	Sulfur Dioxide (SO ₂)
Operational Specifications:	40 CFR 75
Date of Initial System Calibration & Quality Assurance:	10/16/2001
Ongoing System Calibration/Quality Assurance:	40 CFR 75
Reporting & Record keeping:	40 CFR 75. Submit all reports and petitions required by 40 CFR 75 to the Iowa DNR in order to demonstrate compliance with continuous emissions monitoring under the acid rain program and the 5 lb/MMBtu SO ₂ emission limit.
Authority for Requirement:	567 IAC 25.2 567 IAC 23.3(3)"a" 567 IAC 22.108(4) 567 IAC 22.108(15)

Pollutant:	Nitrogen Oxides (NO _x)
Operational Specifications:	40 CFR 75
Date of Initial System Calibration & Quality Assurance:	10/16/2001
Ongoing System Calibration/Quality Assurance:	40 CFR 75
Reporting & Record keeping:	40 CFR 75. Submit all reports and petitions required by 40 CFR Part 75 to the Iowa DNR in order to demonstrate compliance with continuous emissions monitoring under the acid rain program.
Authority for Requirement:	567 IAC 25.2 567 IAC 22.108(4) 567 IAC 22.108(15)

Other Parameters:

Pollutant:	Carbon Dioxide (CO ₂)
Operational Specifications:	40 CFR 75
Date of Initial System Calibration & Quality Assurance:	10/16/2001
Ongoing System Calibration/Quality Assurance:	40 CFR 75
Reporting & Record keeping:	40 CFR 75. Submit all reports and petitions required by 40 CFR Part 75 to the Iowa DNR in order to demonstrate compliance with continuous emissions monitoring under the acid rain program.
Authority for Requirement:	567 IAC 25.2 567 IAC 22.108(4) 567 IAC 22.108(15)

Pollutant:	Flow
Operational Specifications:	40 CFR 75
Date of Initial System Calibration & Quality Assurance:	10/16/2001
Ongoing System Calibration/Quality Assurance:	40 CFR 75
Reporting & Record keeping:	40 CFR 75. Submit all reports and petitions required by 40 CFR Part 75 to the Iowa DNR in order to demonstrate compliance with continuous emissions monitoring under the acid rain program.
Authority for Requirement:	567 IAC 25.2 567 IAC 22.108(4) 567 IAC 22.108(15)

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the tests shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7).

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Compliance Assurance Monitoring (CAM) Plan Required? Yes ☒ No ☐

Authority for Requirement: 567 IAC 22.108(3)

Compliance Assurance Monitoring Plan Electrostatic Precipitator for PM/PM-10 Control

Background

I. Emissions Unit: EP111

A. Description: Boiler 5/6, Dry Bottom Pulverized Coal Unit

Identification: EU111-111

Facility: IPL - Sixth Street Generating Station

B. Applicable Regulation, Emission Limit, and Monitoring Requirements:

Regulation No.: LCPH ATI 4939 / PTO 0
State of Iowa PSD Permit #02-A-404-P

Particulate Emission Limit: 49.22 lb/hr PM/PM-10, 0.1946 lb/MMBtu PM

Opacity Emission Limit: 20%

Current Monitoring Requirements: Stack Testing
Continuous Opacity Monitoring System (COMS)
Secondary Power (Watt)
Electrostatic Precipitator

C. Control Technology:

II. Monitoring Approach

1. Indicator	Opacity of ESP exhaust (stack)	Secondary Power (Watt)
2. Measurement Approach	COMs in ESP exhaust (stack)	Secondary Power (Watt) is monitored not less than 4 (every 15 minute) data points every hour
3. Indicator Range	<p>An excursion is defined as the hourly block average opacity exceeds 20% except during a period of startup, shutdown, or cleaning of control equipment.</p> <p>Excursions trigger an inspection, corrective action, and a reporting requirement at annual or semi annual reports.</p>	<p>An excursion is defined as the hourly block average of the ESP secondary power is out of the ranges below:</p> <p>> 300 Watts (Inlet)</p> <p>> 750 Watts (Outlet)</p> <p>Excursions trigger an inspection, corrective action, and a reporting requirement at annual or semi annual reports</p>

4. Performance Criteria	Data Representativeness	Install the COMs at a representative location in the ESP exhaust per 40 CFR 60, Appendix B, Performance Specification 1 (PS-1)	<p>Plant computer will take secondary power data not less than four data points (every 15 minute) every hour and keep the records.</p> <p>In case of computer and/or software malfunction, manual readings of secondary voltage and amperage readings will be taken once per hour and hourly secondary power(watts) will be calculated in 48 hours. Each data point will represent entire hour block.</p>
	QA/QC Practices /Criteria	Install and evaluate COMs per PS-1. The continuous opacity monitor will be automatically calibrated for zero and span adjustments daily.	The voltage and amperage gauges, which are for power (Watt) monitoring, will be calibrated, maintained, and operated according to the manufacture specifications.
	Monitoring Frequency	Monitor opacity of the ESP exhaust continuously (every 10 seconds)	<p>Plant computer will monitor secondary power not less than four data points (every 15 minutes) per hour.</p> <p>In case of computer and/or software malfunction, manual readings of secondary voltage and amperage readings will be taken once per hour and hourly secondary power(watts) will be calculated in 48 hours. Each data point will represent entire hour block.</p>

	Data Collection Procedures	Set up the data acquisition system (DAS) to retain all 6 minute average and hourly average opacity data.	<p>Plant computer will monitor and record secondary power not less than 4 data points (every 15 minutes) every hour and keep the record for 5 years and available upon request.</p> <p>In case of computer and/or software malfunction, manual readings of secondary voltage and amperage readings will be taken once per hour and hourly secondary power(watts) will be calculated in 48 hours. Each data point will represent entire hour block.</p>
	Averaging Period	Use the 10-second opacity data to calculate 6 minute average. Use the 6 minute average to calculate the hourly block average opacity	Once hourly block average secondary power (Watt) is out of range based on computer indication or one manual out of range point, an excursion is triggered.

III. Quality Improvement Plan (QIP)

A Quality Improvement Plan (QIP) will be required if an accumulation of excursions of either the opacity indicator or the power indicator exceeds 5 percent of the boiler's normal operating time for a 6-month reporting period.

Emission Point ID Number: 112

Associated Equipment

Associated Emission Unit ID Numbers: 112 -112

Emissions Control Equipment ID Number: CE3

Emissions Control Equipment Description: Electrostatic Precipitator, Low NO_x Burners

Continuous Emissions Monitors ID Numbers: ME3, ME3A, ME3B, ME3C, ME3D

Emission Unit vented through this Emission Point: 112

Emission Unit Description: Boiler 7/8, Dry Bottom Pulverized Coal Unit

Raw Material/Fuel: Coal, Fuel Oil, Natural Gas, Facility-Derived Waste¹

Rated Capacity: 304 MMBtu/hr

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 20%

Authority for Requirement: LCPH ATI 4940 / PTO 0
State of Iowa PSD Permit #02-A-405-P
LCO 10.7

Pollutant: PM-10

Emission Limit(s): 29.45 lb/hr²

Authority for Requirement: LCPH ATI 4940 / PTO 0
State of Iowa PSD Permit #02-A-405-P

Pollutant: Particulate Matter

Emission Limit(s): 0.1946 lb/MMBtu

Authority for Requirement: LCPH ATI 4940 / PTO 0
State of Iowa PSD Permit #02-A-405-P
LCO 10.8(1)"c"

Pollutant: Particulate Matter

Emission Limit(s): 29.45 lb/hr²

Authority for Requirement: LCPH ATI 4940 / PTO 0
State of Iowa PSD Permit #02-A-405-P

Pollutant: Sulfur Dioxide (SO₂)

Emission Limits: 667 lb/hr (84 grams/sec) combined total for EP110, EP111, EP112, and EP113 on a 24-hour rolling average basis.

Authority for Requirement: LCPH ATI 4940 / PTO 0
State of Iowa PSD Permit #02-A-405-P
Administrative Consent Order No. 97-AQ-20

Pollutant: Sulfur Dioxide (SO₂)

Emission Limits: 5 lb/MMBtu when burning solid fuels

Authority for Requirement: LCO 10.12(1)"a"

Pollutant: Sulfur Dioxide (SO₂)

Emission Limits: 1.5 lb/MMBtu when burning liquid fuels

Authority for Requirement: LCO 10.12(1)"b"

Pollutant: Sulfur Dioxide (SO₂)

Emission Limits: 500 ppmv when burning gaseous fuels

Authority for Requirement: 567 IAC 23.3(3)"e"
LCO 10.12(2)

Pollutant: Sulfur Dioxide (SO₂)

Emission Limits: Sulfur Dioxide Allowances

Authority for Requirement: 567 IAC 22.108(7)
Attached Phase II Acid Rain Permit

Pollutant: Nitrogen Oxide (NO_x)

Emission Limit(s): 0.44 lb/MMBtu³

Authority for Requirement: LCPH ATI 4940 / PTO 0
State of Iowa PSD Permit #02-A-405-P

Pollutant: Nitrogen Oxide (NO_x)

Emission Limits: See attached Phase II Acid Rain Permit

Authority for Requirement: 567 IAC 22.125(4) (Attached Phase II Acid Rain Permit)
40 CFR Part 76

Pollutant: Carbon Monoxide (CO)

Emission Limit(s): 0.645 lb/MMBtu⁴

Authority for Requirement: LCPH ATI 4940 / PTO 0
State of Iowa PSD Permit #02-A-405-P

¹Facility-derived waste includes 6000 gallons per year used oil; one 55-gallon drum per month used oil adsorbents; 10,000 gallons per year oily water; 8000 gallons once every 5-7 years turbine cleaning waste; 300,000 gallons once every 5-7 years boiler cleaning waste; 1000 gallons per year oil/water separator sludge; 25 cubic yards once every 5 years ion exchange resin; and 10,000 gallons per year water-based parts washer. The material will be either injected directly into the boiler or added directly to the coal as it enters the reclaim hopper. Any material added

directly to the coal must be a mixture of the material and #2 fuel oil. It is required that at least 50% of the mixture is #2 fuel oil. Records are to be kept that show how much material has been injected during the year. MSDSs must be available upon request. Records are to be kept of how much material and how much #2 fuel oil is added to the coal each time.

²To avoid being an NSPS modification.

³Determined on a 30-day rolling average basis – pollution control project

⁴For PSD insignificant impact.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Control Device:

An electrostatic precipitator shall be used to control particulate matter emissions. Low-NO_x burners shall be installed to control NO_x emissions. The control equipment shall be maintained properly and operated at all times the air pollution source is in operation. All appropriate probes, monitors and gauges needed to measure the parameters outlined in "Operating Condition Monitoring and Recordkeeping" shall be installed, maintained and operating during the operation of the emission unit and control device at all times.

Authority for Requirement: LCPH ATI 4940 / PTO 0

NSPS and NESHAP Applicability:

- This unit is not subject to the New Source Performance Standards (NSPS).
- This unit is not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP).

Authority for Requirement: LCPH ATI 4940 / PTO 0

State of Iowa PSD Permit #02-A-405-P

Operating Limits:

- A. For the next year(s) during which this project takes place, and the subsequent five (5) years after the project is complete, the owner or operator shall calculate and record the plantwide emissions (calendar year) for PM, PM₁₀, NO_x, and SO₂. The owner or operator shall notify the LCPH APCO and IDNR within ten (10) days following March 31st of the following year should the calculated annual plantwide emission total exceed any of the following:

PM	260 tpy
PM ₁₀	220 tpy
SO ₂	2,200 tpy
NO _x	1,760 tpy

- B. Coal combusted in this unit shall have a maximum sulfur content of 1.0% by weight.

- C. Fuels combusted in this unit shall be coal, natural gas, and fuel oil. Resifil may be combusted in this unit until September 1, 2003.

Authority for Requirement: LCPH ATI 4940 / PTO 0

State of Iowa PSD Permit #02-A-405-P

Operating Condition Monitoring and Recordkeeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

- A. The owner or operator shall keep records of the date and type of fuel combusted in the unit.
- B. Coal sulfur content for each train load may be demonstrated by fuel supplier certification. Such certification shall include the name of the coal supplier and the location of the coal when the sample was collected for analysis, the results of the coal analysis, and the methods used to determine the coal properties.
- C. The owner or operator shall calculate and record the annual amount of PM, PM₁₀, SO₂ and NO_x emitted plantwide for the next five complete years after this project is complete.
- D. The owner or operator shall maintain hourly and twenty-four hour average SO₂ records which will verify compliance with the twenty-four hour rolling average SO₂ limit required in Administrative Consent Order 97-AQ-20.
- E. The owner or operator shall maintain hourly and thirty day rolling average NO_x records. A new rolling 30-day average shall be calculated each operating day for the preceding 30 operating days.

Authority for Requirement: LCPH ATI 4940 / PTO 0
State of Iowa PSD Permit #02-A-405-P

Continuous Emission Monitoring:

SO₂, NO_x and opacity continuous emission monitors (CEMs) are required. These shall be operated, calibrated, and recorded according to the specifications in 40 CFR 75.

Authority for Requirement: LCPH ATI 4940 / PTO 0
State of Iowa PSD Permit #02-A-405-P

Quarterly Report Requirements:

The following information shall be submitted to this department by the 30th of each month for the previous quarter (January 30, April 30, July 30 and October 30).

- CEM reports for Opacity.
- Monthly coal sulfur certification analyses for the quarter.

Authority for Requirement: LCPH ATI 4940 / PTO 0

Operating Conditions:

Continuous emission monitoring and data collection equipment capable of recording total site hourly and twenty-four hour rolling average SO₂ emission information shall be installed and operational.

Authority for Requirement: Administrative Consent Order No. 97-AQ-20

Maintain hourly and twenty-four hour average SO₂ records for Sixth Street Generating Station which will verify compliance with the twenty-four hour rolling average SO₂ emission limit. The records shall include the data required in the previous paragraph and in 40 CFR 75 for continuous emission monitoring.

Authority for Requirement: Administrative Consent Order No. 97-AQ-20

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height (ft, from ground): 198
 Discharge Style: Vertical, unobstructed
 Stack Opening (inches, diameter): 120
 Exhaust Temperature (°F): 300
 Exhaust Flowrate (acfm): 150,000
 Authority for Requirement: LCPH ATI 4940 / PTO 0
 State of Iowa PSD Permit #02-A-405-P

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Stack Testing:

Pollutant - Particulate Matter

1st Stack Test demonstrated compliance on June 23, 2006

2nd Stack Test to be Completed between – after 2.5 years and before 3.5 years*Test Method - Iowa Compliance Sampling Manual

Authority for Requirement - LCPH ATI 4940 / PTO 0

State of Iowa PSD Permit #02-A-405-P

*567 IAC 22.108(3)

Pollutant – Carbon Monoxide

1st Stack Test demonstrated compliance on April 19, 2005

Test Method – 40 CFR 60, Appendix A, Method 10

Authority for Requirement – LCPH ATI 4940 / PTO 0

State of Iowa PSD Permit #02-A-405-P

Continuous Emissions Monitoring:

Pollutant:	Opacity
Operational Specifications:	40 CFR 75
Date of Initial System Calibration & Quality Assurance:	8/8/1980
Ongoing System Calibration/Quality Assurance:	40 CFR 75
Reporting & Record keeping:	40 CFR 75. Submit all reports and petitions required by 40 CFR 75 to the Iowa DNR in order to demonstrate compliance with continuous emissions monitoring and the 20% opacity (visible emissions) limit.
Authority for Requirement:	567 IAC 25.1(1)

	567 IAC 25.2 567 IAC 23.3(2)"d" 567 IAC 22.108(4) 567 IAC 22.108(15)
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Pollutant:	Sulfur Dioxide (SO ₂)
Operational Specifications:	40 CFR 75
Date of Initial System Calibration & Quality Assurance:	5/2/2001
Ongoing System Calibration/Quality Assurance:	40 CFR 75
Reporting & Record keeping:	40 CFR 75. Submit all reports and petitions required by 40 CFR 75 to the Iowa DNR in order to demonstrate compliance with continuous emissions monitoring under the acid rain program and the 5 lb/MMBtu SO ₂ emission limit.
Authority for Requirement:	567 IAC 25.2 567 IAC 23.3(3)"a" 567 IAC 22.108(4) 567 IAC 22.108(15)

Pollutant:	Nitrogen Oxides (NO _x)
Operational Specifications:	40 CFR 75
Date of Initial System Calibration & Quality Assurance:	5/2/2001
Ongoing System Calibration/Quality Assurance:	40 CFR 75
Reporting & Record keeping:	40 CFR 75. Submit all reports and petitions required by 40 CFR Part 75 to the Iowa DNR in order to demonstrate compliance with continuous emissions monitoring under the acid rain program.
Authority for Requirement:	567 IAC 25.2 567 IAC 22.108(4) 567 IAC 22.105(15)

Other Parameters:

Pollutant:	Carbon Dioxide (CO ₂)
Operational Specifications:	40 CFR 75
Date of Initial System Calibration & Quality Assurance:	5/2/2001
Ongoing System Calibration/Quality Assurance:	40 CFR 75
Reporting & Record keeping:	40 CFR 75. Submit all reports and petitions required by 40 CFR Part 75 to the Iowa DNR in order to

	demonstrate compliance with continuous emissions monitoring under the acid rain program.
Authority for Requirement:	567 IAC 25.2 567 IAC 22.108(4) 567 IAC 22.108(15)

Pollutant:	Flow
Operational Specifications:	40 CFR 75
Date of Initial System Calibration & Quality Assurance:	5/2/2001
Ongoing System Calibration/Quality Assurance:	40 CFR 75
Reporting & Record keeping:	40 CFR 75. Submit all reports and petitions required by 40 CFR Part 75 to the Iowa DNR in order to demonstrate compliance with continuous emissions monitoring under the acid rain program.
Authority for Requirement:	567 IAC 25.2 567 IAC 22.108(4) 567 IAC 22.108(15)

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the tests shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7).

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Compliance Assurance Monitoring (CAM) Plan Required? Yes ☒ No ☐

Authority for Requirement: 567 IAC 22.108(3)

Compliance Assurance Monitoring Plan Electrostatic Precipitator for PM/PM-10 Control

Background

I. Emissions Unit: EP112

- A. Description: Boiler 7/8, Dry Bottom Pulverized Coal Unit
Identification: EU112-112

Facility: IPL - Sixth Street Generating Station

B. Applicable Regulation, Emission Limit, and Monitoring Requirements:

Regulation No.: LCPH ATI 4940 / PTO 0
State of Iowa PSD Permit #02-A-405-P

Particulate Emission Limit: 29.45 lb/hr PM/PM-10, 0.1946 lb/MMBtu PM
Opacity Emission Limit: 20%
Current Monitoring Requirements: Stack Testing
Continuous Opacity Monitoring System (COMS)
Secondary Power (Watt)
Electrostatic Precipitator

C. Control Technology:

II. Monitoring Approach

1. Indicator	Opacity of ESP exhaust (stack)	Secondary Power (Watt)
2. Measurement Approach	COMs in ESP exhaust (stack)	Secondary Power (Watt) is monitored not less than 4 (every 15 minute) data points every hour
3. Indicator Range	<p>An excursion is defined as the hourly block average opacity exceeds 20% except during a period of startup, shutdown, or cleaning of control equipment.</p> <p>Excursions trigger an inspection, corrective action, and a reporting requirement at annual or semi annual reports.</p>	<p>An excursion is defined as the hourly block average of the ESP secondary power is out of the ranges below:</p> <p>> 1050 Watts (Inlet)</p> <p>> 500 Watts (Outlet)</p> <p>Excursions trigger an inspection, corrective action, and a reporting requirement at annual or semi annual reports</p>

4. Performance Criteria	Data Representative	Plant will take Secondary voltage and amperage data <i>daily</i> and keep the records.	<p>Plant computer will take secondary power data not less than four data points (every 15 minute) every hour and keep the records.</p> <p>In case of computer and/or software malfunction, manual readings of secondary voltage and amperage readings will be taken once per hour and hourly secondary power(watts) will be calculated in 48 hours. Each data point will represent entire hour block.</p>
	QA/QC Practices /Criteria	Install and evaluate COMs per PS-1. The continuous opacity monitor will be automatically calibrated for zero and span adjustments daily.	The voltage and amperage gauges, which are for power (Watt) monitoring, will be calibrated, maintained, and operated according to the manufacture specifications.
	Monitoring Frequency	Monitor opacity of the ESP exhaust continuously (every 10 seconds	<p>Plant computer will monitor secondary power not less than four data points (every 15 minute) per hour.</p> <p>In case of computer and/or software malfunction, manual readings of secondary voltage and amperage readings will be taken once per hour and hourly secondary power(watts) will be calculated in 48 hours. Each data point will represent entire hour block.</p>

	Data Collection Procedures	Set up the data acquisition system (DAS) to retain all 6 minute average and hourly average opacity data.	Plant computer will monitor and record secondary power not less than 4 data points (every 15 minute) every hour and keep the record for 5 years and available upon request. In case of computer and/or software malfunction, manual readings of secondary voltage and amperage readings will be taken once per hour and hourly secondary power(watts) will be calculated in 48 hours. Each data point will represent entire hour block.
	Averaging Period	Use the 10-second opacity data to calculate 6 minute average. Use the 6 minute average to calculate the hourly block average opacity	Once hourly block average secondary power (Watt) is out of range based on computer indication or one manual out of range point, an excursion is triggered.

III. Quality Improvement Plan (QIP)

A Quality Improvement Plan (QIP) will be required if an accumulation of excursions of either the opacity indicator or the power indicator exceeds 5 percent of the boiler's normal operating time for a 6-month reporting period.

Emission Point ID Number: 113

Associated Equipment

Associated Emission Unit ID Numbers: 113 -113

Emissions Control Equipment ID Number: CE4

Emissions Control Equipment Description: Electrostatic Precipitator, Low NO_x Burners

Continuous Emissions Monitors ID Numbers: ME4, ME4A, ME4B, ME4C, ME4D

Emission Unit vented through this Emission Point: 113-113

Emission Unit Description: Boiler 9/10, Dry Bottom Pulverized Coal Unit

Raw Material/Fuel: Coal, Fuel Oil, Natural Gas, Facility-Derived Waste¹

Rated Capacity: 389 MMBtu/hr

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 20%

Authority for Requirement: LCPH ATI 4941 / PTO 0
State of Iowa PSD Permit #02-A-406-P
LCO 10.7

Pollutant: PM-10

Emission Limit(s): 52.11 lb/hr²

Authority for Requirement: LCPH ATI 4941 / PTO 0
State of Iowa PSD Permit #02-A-406-P

Pollutant: Particulate Matter

Emission Limit(s): 0.1946 lb/MMBtu

Authority for Requirement: LCPH ATI 4941 / PTO 0
State of Iowa PSD Permit #02-A-406-P
LCO 10.8(1)"c"

Pollutant: Particulate Matter

Emission Limit(s): 52.11 lb/hr²

Authority for Requirement: LCPH ATI 4941 / PTO 0
State of Iowa PSD Permit #02-A-406-P

Pollutant: Sulfur Dioxide (SO₂)

Emission Limits: 667 lb/hr (84 grams/sec) combined total for EP110, EP111, EP112, and EP113 on a 24-hour rolling average basis.

Authority for Requirement: LCPH ATI 4941 / PTO 0
State of Iowa PSD Permit #02-A-406-P
Administrative Consent Order No. 97-AQ-20

Pollutant: Sulfur Dioxide (SO₂)

Emission Limits: 5 lb/MMBtu when burning solid fuels

Authority for Requirement: LCO 10.12(1)"a"

Pollutant: Sulfur Dioxide (SO₂)

Emission Limits: 1.5 lb/MMBtu when burning liquid fuels

Authority for Requirement: LCO 10.12(1)"b"

Pollutant: Sulfur Dioxide (SO₂)

Emission Limits: 500 ppmv when burning gaseous fuels

Authority for Requirement: 567 IAC 23.3(3)"e"
LCO 10.12(2)

Pollutant: Sulfur Dioxide (SO₂)

Emission Limits: Sulfur Dioxide Allowances

Authority for Requirement: 567 IAC 22.108(7)
Attached Phase II Acid Rain Permit

Pollutant: Nitrogen Oxide (NO_x)

Emission Limit(s): 0.44 lb/MMBtu³

Authority for Requirement: LCPH ATI 4941 / PTO 0
State of Iowa PSD Permit #02-A-406-P

Pollutant: Nitrogen Oxide (NO_x)

Emission Limits: See attached Phase II Acid Rain Permit

Authority for Requirement: 567 IAC 22.125(4) (Attached Phase II Acid Rain Permit)
40 CFR Part 76

Pollutant: Carbon Monoxide (CO)

Emission Limit(s): 0.385 lb/MMBtu⁴

Authority for Requirement: LCPH ATI 4941 / PTO 0
State of Iowa PSD Permit #02-A-406-P

¹Facility-derived waste includes 6000 gallons per year used oil; one 55-gallon drum per month used oil adsorbents; 10,000 gallons per year oily water; 8000 gallons once every 5-7 years turbine cleaning waste; 300,000 gallons once every 5-7 years boiler cleaning waste; 1000 gallons per year oil/water separator sludge; 25 cubic yards once every 5 years ion exchange resin; and 10,000 gallons per year water-based parts washer. The material will be either injected directly into the boiler or added directly to the coal as it enters the reclaim hopper. Any material added directly to the coal must be a mixture of the material and #2 fuel oil. It is required that at least

50% of the mixture is #2 fuel oil. Records are to be kept that show how much material has been injected during the year. MSDSs must be available upon request. Records are to be kept of how much material and how much #2 fuel oil is added to the coal each time.

²To avoid being an NSPS modification.

³Determined on a 30-day rolling average basis – pollution control project

⁴For PSD insignificant impact.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Control Device:

An electrostatic precipitator shall be used to control particulate matter emissions. Low-NO_x burners shall be installed to control NO_x emissions. The control equipment shall be maintained properly and operated at all times the air pollution source is in operation. All appropriate probes, monitors and gauges needed to measure the parameters outlined in "Operating Condition Monitoring and Recordkeeping" shall be installed, maintained and operating during the operation of the emission unit and control device at all times.

Authority for Requirement: LCPH ATI 4941 / PTO 0

NSPS and NESHAP Applicability:

- This unit is not subject to the New Source Performance Standards (NSPS).
- This unit is not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP).

Authority for Requirement: LCPH ATI 4941 / PTO 0

State of Iowa PSD Permit #02-A-406-P

Operating Limits:

A. For the next year(s) during which this project takes place, and the subsequent five (5) years after the project is complete, the owner or operator shall calculate and record the plantwide emissions (calendar year) for PM, PM₁₀, NO_x, and SO₂. The owner or operator shall notify the LCPH APCO and IDNR within ten (10) days following March 31st of the following year should the calculated annual plantwide emission total exceed any of the following:

PM	260 tpy
PM ₁₀	220 tpy
SO ₂	2,200 tpy
NO _x	1,760 tpy

B. Coal combusted in this unit shall have a maximum sulfur content of 1.0% by weight.

C. Fuels combusted in this unit shall be coal, natural gas, and fuel oil.

Authority for Requirement: LCPH ATI 4941 / PTO 0

State of Iowa PSD Permit #02-A-406-P

Operating Condition Monitoring and Recordkeeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

- A. The owner or operator shall keep records of the date and type of fuel combusted in the unit.
- B. Coal sulfur content for each train load may be demonstrated by fuel supplier certification. Such certification shall include the name of the coal supplies and the location of the coal when the sample was collected for analysis, the results of the coal analysis, and the methods used to determine the coal properties.
- C. The owner or operator shall calculate and record the annual amount of PM, PM₁₀, SO₂ and NO_x emitted plantwide for the next five complete years after this project is complete.
- D. The owner or operator shall maintain hourly and twenty-four hour average SO₂ records which will verify compliance with the twenty-four hour rolling average SO₂ limit required in Administrative Consent Order 97-AQ-20.
- E. The owner or operator shall maintain hourly and thirty day rolling average NO_x records. A new rolling 30-day average shall be calculated each operating day for the preceding 30 operating days.

Authority for Requirement: LCPH ATI 4941 / PTO 0
State of Iowa PSD Permit #02-A-406-P

Continuous Emission Monitoring:

SO₂, NO_x and opacity continuous emission monitors (CEMs) are required. These shall be operated, calibrated, and recorded according to the specifications in 40 CFR 75.

Authority for Requirement: LCPH ATI 4941 / PTO 0
State of Iowa PSD Permit #02-A-405-P

Quarterly Report Requirements:

The following information shall be submitted to this department by the 30th of each month for the previous quarter (January 30, April 30, July 30 and October 30).

- CEM reports for Opacity.
- Monthly coal sulfur certification analyses for the quarter.

Authority for Requirement: LCPH ATI 4941 / PTO 0

Operating Conditions:

Continuous emission monitoring and data collection equipment capable of recording total site hourly and twenty-four hour rolling average SO₂ emission information shall be installed and operational.

Authority for Requirement: Administrative Consent Order No. 97-AQ-20

Maintain hourly and twenty-four hour average SO₂ records for Sixth Street Generating Station which will verify compliance with the twenty-four hour rolling average SO₂ emission limit. The records shall include the data required in the previous paragraph and in 40 CFR 75 for continuous emission monitoring.

Authority for Requirement: Administrative Consent Order No. 97-AQ-20

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height (ft, from ground): 198
 Discharge Style: Vertical, unobstructed
 Stack Opening (inches, diameter): 120
 Exhaust Temperature (°F): 300
 Exhaust Flowrate (acfm): 150,000
 Authority for Requirement: LCPH ATI 4941 / PTO 0
 State of Iowa PSD Permit #02-A-406-P

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Stack Testing:

Pollutant - Particulate Matter
 1st Stack Test demonstrated compliance on April 19, 2006
 2nd Stack Test to be Completed between – after 2.5 years and before 3.5 years*
 Test Method - Iowa Compliance Sampling Manual
 Authority for Requirement - LCPH ATI 4941 / PTO 0
 State of Iowa PSD Permit #02-A-406-P
 *567 IAC 22.108(3)

Pollutant – Carbon Monoxide
 1st Stack Test demonstrated compliance on April 19, 2005
 Test Method – 40 CFR 60, Appendix A, Method 10
 Authority for Requirement – LCPH ATI 4941 / PTO 0
 State of Iowa PSD Permit #02-A-406-P

Continuous Emissions Monitoring:

Pollutant:	Opacity
Operational Specifications:	40 CFR 75
Date of Initial System Calibration & Quality Assurance:	6/11/1980
Ongoing System Calibration/Quality Assurance:	40 CFR 75
Reporting & Record keeping:	40 CFR 75. Submit all reports and petitions required by 40 CFR 75 to the Iowa DNR in order to demonstrate compliance with continuous emissions monitoring and the 20% opacity (visible emissions) limit.

Authority for Requirement:	567 IAC 25.1(1) 567 IAC 25.2 567 IAC 23.3(2)"d" 567 IAC 22.108(4) 567 IAC 22.108(15)
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Pollutant:	Sulfur Dioxide (SO ₂)
Operational Specifications:	40 CFR 75
Date of Initial System Calibration & Quality Assurance:	5/2/2001
Ongoing System Calibration/Quality Assurance:	40 CFR 75
Reporting & Record keeping:	40 CFR 75. Submit all reports and petitions required by 40 CFR 75 to the Iowa DNR in order to demonstrate compliance with continuous emissions monitoring under the acid rain program and the 5 lb/MMBtu SO ₂ emission limit.
Authority for Requirement:	567 IAC 25.2 567 IAC 22.108(4) 567 IAC 22.108(15)

Pollutant:	Nitrogen Oxides (NO _x)
Operational Specifications:	40 CFR 75
Date of Initial System Calibration & Quality Assurance:	5/2/2001
Ongoing System Calibration/Quality Assurance:	40 CFR 75
Reporting & Record keeping:	40 CFR 75. Submit all reports and petitions required by 40 CFR 75 to the Iowa DNR in order to demonstrate compliance with continuous emissions monitoring under the acid rain program.
Authority for Requirement:	567 IAC 25.2 567 IAC 22.108(4) 567 IAC 22.108(15)

Other Parameters:

Pollutant:	Carbon Dioxide (CO ₂)
Operational Specifications:	40 CFR 75
Date of Initial System Calibration & Quality Assurance:	5/2/2001
Ongoing System Calibration/Quality Assurance:	40 CFR 75
Reporting & Record keeping:	40 CFR 75. Submit all reports and petitions required by 40 CFR Part 75 to the Iowa DNR in order to demonstrate compliance with continuous emissions monitoring under the acid rain program.
Authority for Requirement:	567 IAC 25.2 567 IAC 22.108(4) 567 IAC 22.108(15)

Pollutant:	Flow
Operational Specifications:	40 CFR 75
Date of Initial System Calibration & Quality Assurance:	5/2/2001
Ongoing System Calibration/Quality Assurance:	40 CFR 75
Reporting & Record keeping:	40 CFR 75. Submit all reports and petitions required by 40 CFR 75 to the Iowa DNR in order to demonstrate compliance with continuous emissions monitoring under the acid rain program.
Authority for Requirement:	567 IAC 25.2 567 IAC 22.108(4) 567 IAC 22.108(15)

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the tests shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7).

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Compliance Assurance Monitoring (CAM) Plan Required? Yes ☒ No ☐

Authority for Requirement: 567 IAC 22.108(3)

Compliance Assurance Monitoring Plan Electrostatic Precipitator for PM/PM-10 Control

Background

I. Emissions Unit: EP113

A. Description: Boiler 9/10, Dry Bottom Pulverized Coal Unit

Identification: EU113-113

Facility: IPL - Sixth Street Generating Station

B. Applicable Regulation, Emission Limit, and Monitoring Requirements:

Regulation No.: LCPH ATI 4941 / PTO 0
State of Iowa PSD Permit #02-A-406-P

Particulate Emission Limit: 52.11 lb/hr PM/PM-10, 0.1946 lb/MMBtu PM

Opacity Emission Limit: 20%

Current Monitoring Requirements: Stack Testing
Continuous Opacity Monitoring System (COMS)
Secondary Power (Watt)

C. Control Technology: Electrostatic Precipitator

II. Monitoring Approach

1. Indicator	Opacity of ESP exhaust (stack)	Secondary Power (Watt)
2. Measurement Approach	COMs in ESP exhaust (stack)	Secondary Power (Watt) is monitored not less than 4 (every 15 minute) data points every hour
3. Indicator Range	<p>An excursion is defined as the hourly block average opacity exceeds 20% except during a period of startup, shutdown, or cleaning of control equipment.</p> <p>Excursions trigger an inspection, corrective action, and a reporting requirement at annual or semi annual reports.</p>	<p>An excursion is defined as the hourly block average of the ESP secondary power is out of the ranges below:</p> <p>>25 Watts (Inlet) > 25 Watts (Middle) > 150 Watts (Outlet)</p> <p>Excursions trigger an inspection, corrective action, and a reporting requirement at annual or semi annual reports.</p>

4. Performance Criteria	Data Representative	Install the COMs at a representative location in the ESP exhaust per 40 CFR 60, Appendix B, Performance Specification 1 (PS-1)	<p>Plant computer will take secondary power data not less than four data points (every 15 minute) every hour and keep the records.</p> <p>In case of computer and/or software malfunction, manual readings of secondary voltage and amperage readings will be taken once per hour and hourly secondary power(watts) will be calculated in 48 hours. Each data point will represent entire hour block.</p>
	QA/QC Practices /Criteria	Install and evaluate COMs per PS-1. The continuous opacity monitor will be automatically calibrated for zero and span adjustments daily.	The voltage and amperage gauges, which are for power (Watt) monitoring, will be calibrated, maintained, and operated according to the manufacture specifications.
	Monitoring Frequency	Monitor opacity of the ESP exhaust continuously (every 10 seconds)	<p>Plant computer will monitor secondary power not less than four data points (every 15 minute) per hour.</p> <p>In case of computer and/or software malfunction, manual readings of secondary voltage and amperage readings will be taken once per hour and hourly secondary power(watts) will be calculated in 48 hours. Each data point will represent entire hour block.</p>

	Data Collection Procedures	Set up the data acquisition system (DAS) to retain all 6 minute average and hourly average opacity data.	Plant computer will monitor and record secondary power not less than 4 data points (every 15 minute) every hour and keep the record for 5 years and available upon request. In case of computer and/or software malfunction, manual readings of secondary voltage and amperage readings will be taken once per hour and hourly secondary power(watts) will be calculated in 48 hours. Each data point will represent entire hour block.
	Averaging Period	Use the 10-second opacity data to calculate 6 minute average. Use the 6 minute average to calculate the hourly block average opacity	Once hourly block average secondary power (Watt) is out of range based on computer indication or one manual out of range point, an excursion is triggered.

III. Quality Improvement Plan (QIP)

A Quality Improvement Plan (QIP) will be required if an accumulation of excursions of either the opacity indicator or the power indicator exceeds 5 percent of the boiler's normal operating time for a 6-month reporting period.

IV. General Conditions

This permit is issued under the authority of the Iowa Code subsection 455B.133(8) and in accordance with 567 Iowa Administrative Code chapter 22.

G1. Duty to Comply

1. The permittee must comply with all conditions of the Title V permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for a permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. *567 IAC 22.108(9)"a"*
2. Any compliance schedule shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based. *567 IAC 22.105 (2)"h"(3)*
3. Where an applicable requirement of the Act is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, both provisions shall be enforceable by the administrator and are incorporated into this permit. *567 IAC 22.108 (1)"b"*
4. Unless specified as either "state enforceable only" or "local program enforceable only", all terms and conditions in the permit, including provisions to limit a source's potential to emit, are enforceable by the administrator and citizens under the Act. *567 IAC 22.108 (14)*
5. It shall not be a defense for a permittee, in an enforcement action, that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. *567 IAC 22.108 (9)"b"*

G2. Permit Expiration

1. Except as provided in 567 IAC 22.104, the expiration of this permit terminates the permittee's right to operate unless a timely and complete application has been submitted for renewal. Any testing required for renewal shall be completed before the application is submitted. *567 IAC 22.116(2)*
2. To be considered timely, the owner, operator, or designated representative (where applicable) of each source required to obtain a Title V permit shall present or mail the Air Quality Bureau, Iowa Department of Natural Resources, Air Quality Bureau, 7900 Hickman Rd, Suite #1, Urbandale, Iowa 50322, two copies (three if your facility is located in Linn or Polk county) of a complete permit application, at least 6 months but not more than 18 months prior to the date of permit expiration. An additional copy must also be sent to EPA Region VII, Attention: Chief of Air Permits, 901 N. 5th St., Kansas City, KS 66101. The application must include all emission points, emission units, air pollution control equipment, and monitoring devices at the facility. All emissions generating activities, including fugitive emissions, must be included. The definition of a complete application is as indicated in 567 IAC 22.105(2). *567 IAC 22.105*

G3. Certification Requirement for Title V Related Documents

Any application, report, compliance certification or other document submitted pursuant to this permit shall contain certification by a responsible official of truth, accuracy, and completeness. All certifications shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. *567 IAC 22.107 (4)*

G4. Annual Compliance Certification

By March 31 of each year, the permittee shall submit compliance certifications for the previous calendar year. The certifications shall include descriptions of means to monitor the compliance status of all emissions sources including emissions limitations, standards, and work practices in accordance with applicable requirements. The certification for a source shall include the identification of each term or condition of the permit that is the basis of the certification; the

compliance status; whether compliance was continuous or intermittent; the method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with all applicable department rules. For sources determined not to be in compliance at the time of compliance certification, a compliance schedule shall be submitted which provides for periodic progress reports, dates for achieving activities, milestones, and an explanation of why any dates were missed and preventive or corrective measures. The compliance certification shall be submitted to the administrator, director, and the appropriate DNR Field office. 567 IAC 22.108 (15)"e"

G5. Semi-Annual Monitoring Report

By March 31 and September 30 of each year, the permittee shall submit a report of any monitoring required under this permit for the 6 month periods of July 1 to December 31 and January 1 to June 30, respectively. All instances of deviations from permit requirements must be clearly identified in these reports, and the report must be signed by a responsible official, consistent with 567 IAC 22.107(4). The semi-annual monitoring report shall be submitted to the director and the appropriate DNR Field office. 567 IAC 22.108 (5)

G6. Annual Fee

1. The permittee is required under subrule 567 IAC 22.106 to pay an annual fee based on the total tons of actual emissions of each regulated air pollutant. Beginning July 1, 1996, Title V operating permit fees will be paid on July 1 of each year. The fee shall be based on emissions for the previous calendar year.

2. The fee amount shall be calculated based on the first 4,000 tons of each regulated air pollutant emitted each year. The fee to be charged per ton of pollutant will be available from the department by June 1 of each year. The Responsible Official will be advised of any change in the annual fee per ton of pollutant.

3. The following forms shall be submitted annually by March 31 documenting actual emissions for the previous calendar year.

- a. Form 1.0 "Facility Identification";
- b. Form 4.0 "Emissions unit-actual operations and emissions" for each emission unit;
- c. Form 5.0 "Title V annual emissions summary/fee"; and
- d. Part 3 "Application certification."

4. The fee shall be submitted annually by July 1. The fee shall be submitted with the following forms:

- a. Form 1.0 "Facility Identification";
- b. Form 5.0 "Title V annual emissions summary/fee";
- c. Part 3 "Application certification."

5. If there are any changes to the emission calculation form, the department shall make revised forms available to the public by January 1. If revised forms are not available by January 1, forms from the previous year may be used and the year of emissions documented changed. The department shall calculate the total statewide Title V emissions for the prior calendar year and make this information available to the public no later than April 30 of each year.

6. Phase I acid rain affected units under section 404 of the Act shall not be required to pay a fee for emissions which occur during the years 1993 through 1999 inclusive.

7. The fee for a portable emissions unit or stationary source which operates both in Iowa and out of state shall be calculated only for emissions from the source while operating in Iowa.

8. Failure to pay the appropriate Title V fee represents cause for revocation of the Title V permit as indicated in 567 IAC 22.115(1)"d".

G7. Inspection of Premises, Records, Equipment, Methods and Discharges

Upon presentation of proper credentials and any other documents as may be required by law, the permittee shall allow the director or the director's authorized representative to:

1. Enter upon the permittee's premises where a Title V source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
3. Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
4. Sample or monitor, at reasonable times, substances or parameters for the purpose of ensuring compliance with the permit or other applicable requirements. *567 IAC 22.108 (15)"b"*

G8. Duty to Provide Information

The permittee shall furnish to the director, within a reasonable time, any information that the director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee also shall furnish to the director copies of records required to be kept by the permit, or for information claimed to be confidential, the permittee shall furnish such records directly to the administrator of EPA along with a claim of confidentiality. *567 IAC 22.108 (9)"e"*

G9. General Maintenance and Repair Duties

The owner or operator of any air emission source or control equipment shall:

1. Maintain and operate the equipment or control equipment at all times in a manner consistent with good practice for minimizing emissions.
2. Remedy any cause of excess emissions in an expeditious manner.
3. Minimize the amount and duration of any excess emission to the maximum extent possible during periods of such emissions. These measures may include but not be limited to the use of clean fuels, production cutbacks, or the use of alternate process units or, in the case of utilities, purchase of electrical power until repairs are completed.
4. Schedule, at a minimum, routine maintenance of equipment or control equipment during periods of process shutdowns to the maximum extent possible. *567 IAC 24.2(1)*

G10. Recordkeeping Requirements for Compliance Monitoring

1. In addition to any source specific recordkeeping requirements contained in this permit, the permittee shall maintain the following compliance monitoring records, where applicable:
 - a. The date, place and time of sampling or measurements
 - b. The date the analyses were performed.
 - c. The company or entity that performed the analyses.
 - d. The analytical techniques or methods used.
 - e. The results of such analyses; and
 - f. The operating conditions as existing at the time of sampling or measurement.
 - g. The records of quality assurance for continuous compliance monitoring systems (including but not limited to quality control activities, audits and calibration drifts.)
2. The permittee shall retain records of all required compliance monitoring data and support information for a period of at least 5 years from the date of compliance monitoring sample, measurement report or application. Support information includes all calibration and maintenance records and all original strip chart recordings for continuous compliance monitoring, and copies of all reports required by the permit.
3. For any source which in its application identified reasonably anticipated alternative operating scenarios, the permittee shall:

- a. Comply with all terms and conditions of this permit specific to each alternative scenario.
- b. Maintain a log at the permitted facility of the scenario under which it is operating.
- c. Consider the permit shield, if provided in this permit, to extend to all terms and conditions under each operating scenario. *567 IAC 22.108(4), 567 IAC 22.108(12)*

G11. Evidence used in establishing that a violation has or is occurring.

Notwithstanding any other provisions of these rules, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions herein.

1. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred at a source:
 - a. A monitoring method approved for the source and incorporated in an operating permit pursuant to 567 Chapter 22;
 - b. Compliance test methods specified in 567 Chapter 25; or
 - c. Testing or monitoring methods approved for the source in a construction permit issued pursuant to 567 Chapter 22.
2. The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:
 - a. Any monitoring or testing methods provided in these rules; or
 - b. Other testing, monitoring, or information gathering methods that produce information comparable to that produced by any method in subrule 21.5(1) or this subrule. *567 IAC 21.5(1)-567 IAC 21.5(2)*

G12. Prevention of Accidental Release: Risk Management Plan Notification and Compliance Certification

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Act, the permittee shall notify the department of this requirement. The plan shall be filed with all appropriate authorities by the deadline specified by EPA. A certification that this risk management plan is being properly implemented shall be included in the annual compliance certification of this permit. *567 IAC 22.108(6)*

G13. Hazardous Release

The permittee must report any situation involving the actual, imminent, or probable release of a hazardous substance into the atmosphere which, because of the quantity, strength and toxicity of the substance, creates an immediate or potential danger to the public health, safety or to the environment. A verbal report shall be made to the department at (515) 281-8694 and to the local police department or the office of the sheriff of the affected county as soon as possible but not later than six hours after the discovery or onset of the condition. This verbal report must be followed up with a written report as indicated in *567 IAC 131.2(2), 567 IAC Chapter 131-State Only*

G14. Excess Emissions and Excess Emissions Reporting Requirements

1. Excess Emissions. Excess emission during a period of startup, shutdown, or cleaning of control equipment is not a violation of the emission standard if the startup, shutdown or cleaning is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions. Cleaning of control equipment which does not require the shutdown of the process equipment shall be limited to one six-minute period per one-hour period. An incident of excess emission (other than an incident during startup, shutdown or cleaning of control equipment) is a violation. If the owner or operator of a source maintains that the incident of excess emission was due to a malfunction, the owner or operator must show that the conditions which caused the incident of excess emission were not preventable by reasonable maintenance and control

measures. Determination of any subsequent enforcement action will be made following review of this report. If excess emissions are occurring, either the control equipment causing the excess emission shall be repaired in an expeditious manner or the process generating the emissions shall be shutdown within a reasonable period of time. An expeditious manner is the time necessary to determine the cause of the excess emissions and to correct it within a reasonable period of time. A reasonable period of time is eight hours plus the period of time required to shut down the process without damaging the process equipment or control equipment. In the case of an electric utility, a reasonable period of time is eight hours plus the period of time until comparable generating capacity is available to meet consumer demand with the affected unit out of service, unless, the director shall, upon investigation, reasonably determine that continued operation constitutes an unjustifiable environmental hazard and issue an order that such operation is not in the public interest and require a process shutdown to commence immediately.

2. Excess Emissions Reporting

a. Oral Reporting of Excess Emissions. An incident of excess emission (other than an incident of excess emission during a period of startup, shutdown, or cleaning) shall be reported to the appropriate field office of the department within eight hours of, or at the start of the first working day following the onset of the incident. The reporting exemption for an incident of excess emission during startup, shutdown or cleaning does not relieve the owner or operator of a source with continuous monitoring equipment of the obligation of submitting reports required in 567-subrule 25.1(6). An oral report of excess emission is not required for a source with operational continuous monitoring equipment (as specified in 567-subrule 25.1(1)) if the incident of excess emission continues for less than 30 minutes and does not exceed the applicable emission standard by more than 10 percent or the applicable visible emission standard by more than 10 percent opacity. The oral report may be made in person or by telephone and shall include as a minimum the following:

- i. The identity of the equipment or source operation from which the excess emission originated and the associated stack or emission point.
- ii. The estimated quantity of the excess emission.
- iii. The time and expected duration of the excess emission.
- iv. The cause of the excess emission.
- v. The steps being taken to remedy the excess emission.
- vi. The steps being taken to limit the excess emission in the interim period.

b. Written Reporting of Excess Emissions. A written report of an incident of excess emission shall be submitted as a follow-up to all required oral reports to the department within seven days of the onset of the upset condition, and shall include as a minimum the following:

- i. The identity of the equipment or source operation point from which the excess emission originated and the associated stack or emission point.
- ii. The estimated quantity of the excess emission.
- iii. The time and duration of the excess emission.
- iv. The cause of the excess emission.
- v. The steps that were taken to remedy and to prevent the recurrence of the incident of excess emission.
- vi. The steps that were taken to limit the excess emission.
- vii. If the owner claims that the excess emission was due to malfunction, documentation to support this claim. 567 IAC 24.1(1)-567 IAC 24.1(4)

3. Emergency Defense for Excess Emissions. For the purposes of this permit, an “emergency” means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include non-compliance, to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation or operator error. An emergency constitutes an affirmative defense to an action brought for non-compliance with technology based limitations if it can be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that:

- a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;
- b. The facility at the time was being properly operated;
- c. During the period of the emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements of the permit; and
- d. The permittee submitted notice of the emergency to the director by certified mail within two working days of the time when the emissions limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. *567 IAC 22.108(16)*

G15. Permit Deviation Reporting Requirements

A deviation is any failure to meet a term, condition or applicable requirement in the permit. Reporting requirements for deviations that result in a hazardous release or excess emissions have been indicated above (see G13 and G14). Unless more frequent deviation reporting is specified in the permit, any other deviation shall be documented in the semi-annual monitoring report and the annual compliance certification (see G4 and G5). *567 IAC 22.108(5)"b"*

G16. Notification Requirements for Sources That Become Subject to NSPS and NESHAP Regulations

During the term of this permit, the permittee must notify the department of any source that becomes subject to a standard or other requirement under 567-subrule 23.1(2) (standards of performance of new stationary sources) or section 111 of the Act; or 567-subrule 23.1(3) (emissions standards for hazardous air pollutants), 567-subrule 23.1(4) (emission standards for hazardous air pollutants for source categories) or section 112 of the Act. This notification shall be submitted in writing to the department pursuant to the notification requirements in 40 CFR Section 60.7, 40 CFR Section 61.07, and/or 40 CFR Section 63.9. *567 IAC 23.1(2), 567 IAC 23.1(3), 567 IAC 23.1(4)*

G17. Requirements for Making Changes to Emission Sources That Do Not Require Title V Permit Modification

1. Off Permit Changes to a Source. Pursuant to section 502(b)(10) of the CAAA, the permittee may make changes to this installation/facility without revising this permit if:
 - a. The changes are not major modifications under any provision of any program required by section 110 of the Act, modifications under section 111 of the act, modifications under section 112 of the act, or major modifications as defined in 567 IAC Chapter 22.
 - b. The changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions);
 - c. The changes are not modifications under any provisions of Title I of the Act and the changes do not exceed the emissions allowable under the permit (whether expressed

therein as a rate of emissions or as total emissions);

d. The changes are not subject to any requirement under Title IV of the Act.

e. The changes comply with all applicable requirements.

f. For such a change, the permitted source provides to the department and the administrator by certified mail, at least 30 days in advance of the proposed change, a written notification, including the following, which must be attached to the permit by the source, the department and the administrator:

i. A brief description of the change within the permitted facility,

ii. The date on which the change will occur,

iii. Any change in emission as a result of that change,

iv. The pollutants emitted subject to the emissions trade

v. If the emissions trading provisions of the state implementation plan are invoked, then Title V permit requirements with which the source shall comply; a description of how the emissions increases and decreases will comply with the terms and conditions of the Title V permit.

vi. A description of the trading of emissions increases and decreases for the purpose of complying with a federally enforceable emissions cap as specified in and in compliance with the Title V permit; and

vii. Any permit term or condition no longer applicable as a result of the change.

567 IAC 22.110(1)

2. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), record keeping, reporting, or compliance certification requirements. *567 IAC 22.110(2)*

3. Notwithstanding any other part of this rule, the director may, upon review of a notice, require a stationary source to apply for a Title V permit if the change does not meet the requirements of subrule 22.110(1). *567 IAC 22.110(3)*

4. The permit shield provided in subrule 22.108(18) shall not apply to any change made pursuant to this rule. Compliance with the permit requirements that the source will meet using the emissions trade shall be determined according to requirements of the state implementation plan authorizing the emissions trade. *567 IAC 22.110(4)*

5. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes, for changes that are provided for in this permit. *567 IAC 22.108(11)*

G18. Duty to Modify a Title V Permit

1. Administrative Amendment.

a. An administrative permit amendment is a permit revision that is required to do any of the following:

i. Correct typographical errors

ii. Identify a change in the name, address, or telephone number of any person identified in the permit, or provides a similar minor administrative change at the source;

iii. Require more frequent monitoring or reporting by the permittee; or

iv. Allow for a change in ownership or operational control of a source where the director determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit

responsibility, coverage and liability between the current and new permittee has been submitted to the director.

b. The permittee may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request. The request shall be submitted to the director.

c. Administrative amendments to portions of permits containing provisions pursuant to Title IV of the Act shall be governed by regulations promulgated by the administrator under Title IV of the Act.

2. Minor Permit Modification.

a. Minor permit modification procedures may be used only for those permit modifications that do any of the following:

i. Do not violate any applicable requirements

ii. Do not involve significant changes to existing monitoring, reporting or recordkeeping requirements in the Title V permit.

iii. Do not require or change a case by case determination of an emission limitation or other standard, or increment analysis.

iv. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed in order to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include any federally enforceable emissions caps which the source would assume to avoid classification as a modification under any provision under Title I of the Act; and an alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Act.;

v. Are not modifications under any provision of Title I of the Act; and

vi. Are not required to be processed as significant modification.

b. An application for minor permit revision shall be on the minor Title V modification application form and shall include at least the following:

i. A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs.

ii. The permittee's suggested draft permit

iii. Certification by a responsible official, pursuant to 567 IAC 22.107(4), that the proposed modification meets the criteria for use of a minor permit modification procedures and a request that such procedures be used; and

iv. Completed forms to enable the department to notify the administrator and the affected states as required by 567 IAC 22.107(7).

c. The permittee may make the change proposed in its minor permit modification application immediately after it files the application. After the permittee makes this change and until the director takes any of the actions specified in 567 IAC 22.112(4) "a" to "c", the permittee must comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this time, the permittee need not comply with the existing permit terms and conditions it seeks to modify. However, if the permittee fails to comply with its proposed permit terms and conditions during this time period, existing permit term terms and conditions it seeks to modify may subject the facility to enforcement action.

3. Significant Permit Modification. Significant Title V modification procedures shall be used for applications requesting Title V permit modifications that do not qualify as minor Title V

modifications or as administrative amendments. These include but are not limited to all significant changes in monitoring permit terms, every relaxation of reporting or recordkeeping permit terms, and any change in the method of measuring compliance with existing requirements. Significant Title V modifications shall meet all requirements of 567 IAC Chapter 22, including those for applications, public participation, review by affected states, and review by the administrator, and those requirements that apply to Title V issuance and renewal. *567 IAC 22.111-567 IAC 22.113* The permittee shall submit an application for a significant permit modification not later than three months after commencing operation of the changed source unless the existing Title V permit would prohibit such construction or change in operation, in which event the operation of the changed source may not commence until the department revises the permit. *567 IAC 22.105(1)"a"(4)*

G19. Duty to Obtain Construction Permits

Unless exempted under 567 IAC 22.1(2), the permittee must not construct, install, reconstruct, or alter any equipment, control equipment or anaerobic lagoon without first obtaining a construction permit, conditional permit, or permit pursuant to 567 IAC 22.8, or permits required pursuant to 567 IAC 22.4 and 567 IAC 22.5. Such permits shall be obtained prior to the initiation of construction, installation or alteration of any portion of the stationary source. *567 IAC 22.1(1)*

G20. Asbestos

The permittee shall comply with 567 IAC 23.1(3)"a", and 567 IAC 23.2(3)"g" when activities involve asbestos mills, surfacing of roadways, manufacturing operations, fabricating, insulating, waste disposal, spraying applications, demolition and renovation operations, training fires and controlled burning of a demolished building. *567 IAC 23.1(3)"a", and 567 IAC 23.2*

G21. Open Burning

The permittee is prohibited from conducting open burning, except as may be allowed by 567 IAC 23.2. *567 IAC 23.2 except 23.2(3)"h"; 567 IAC 23.2(3)"h" - State Only*

G22. Acid Rain (Title IV) Emissions Allowances

The permittee shall not exceed any allowances that it holds under Title IV of the Act or the regulations promulgated there under. Annual emissions of sulfur dioxide in excess of the number of allowances to emit sulfur dioxide held by the owners and operators of the unit or the designated representative of the owners and operators is prohibited. Exceedences of applicable emission rates are prohibited. "Held" in this context refers to both those allowances assigned to the owners and operators by USEPA, and those allowances supplementally acquired by the owners and operators. The use of any allowance prior to the year for which it was allocated is prohibited. Contravention of any other provision of the permit is prohibited. *567 IAC 22.108(7)*

G23. Stratospheric Ozone and Climate Protection (Title VI) Requirements

1. The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:

- a. All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to § 82.106.
- b. The placement of the required warning statement must comply with the requirements pursuant to § 82.108.
- c. The form of the label bearing the required warning statement must comply with the requirements pursuant to § 82.110.
- d. No person may modify, remove, or interfere with the required warning statement except as described in § 82.112.

2. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for MVACs in Subpart B:
 - a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156.
 - b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to § 82.158.
 - c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161.
 - d. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with reporting and recordkeeping requirements pursuant to § 82.166. ("MVAC-like appliance" as defined at § 82.152)
 - e. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to § 82.156.
 - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.
3. If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.
4. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant,
5. The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program. *40 CFR part 82*

G24. Permit Reopenings

1. This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. *567 IAC 22.108(9)"c"*
2. Additional applicable requirements under the Act become applicable to a major part 70 source with a remaining permit term of 3 or more years. Revisions shall be made as expeditiously as practicable, but not later than 18 months after the promulgation of such standards and regulations.
 - a. Reopening and revision on this ground is not required if the permit has a remaining term of less than three years;
 - b. Reopening and revision on this ground is not required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions have been extended pursuant to 40 CFR 70.4(b)(10)(i) or (ii) as amended to June 25, 1993.

c. Reopening and revision on this ground is not required if the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. *567 IAC 22.108(17)"a", 567 IAC 22.108(17)"b"*

3. A permit shall be reopened and revised under any of the following circumstances:
 - a. The department receives notice that the administrator has granted a petition for disapproval of a permit pursuant to 40 CFR 70.8(d) as amended to June 25, 1993, provided that the reopening may be stayed pending judicial review of that determination;
 - b. The department or the administrator determines that the Title V permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Title V permit;
 - c. Additional applicable requirements under the Act become applicable to a Title V source, provided that the reopening on this ground is not required if the permit has a remaining term of less than three years, the effective date of the requirement is later than the date on which the permit is due to expire, or the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. Such a reopening shall be complete not later than 18 months after promulgation of the applicable requirement.
 - d. Additional requirements, including excess emissions requirements, become applicable to a Title IV affected source under the acid rain program. Upon approval by the administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.
 - e. The department or the administrator determines that the permit must be revised or revoked to ensure compliance by the source with the applicable requirements. *567 IAC 22.114(1)*
4. Proceedings to reopen and reissue a Title V permit shall follow the procedures applicable to initial permit issuance and shall effect only those parts of the permit for which cause to reopen exists. *567 IAC 22.114(2)*

G25. Permit Shield

1. The director may expressly include in a Title V permit a provision stating that compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that:
 - a. Such applicable requirements are included and are specifically identified in the permit; or
 - b. The director, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the permit includes the determination or a concise summary thereof.
2. A Title V permit that does not expressly state that a permit shield exists shall be presumed not to provide such a shield.
3. A permit shield shall not alter or affect the following:
 - a. The provisions of Section 303 of the Act (emergency orders), including the authority of the administrator under that section;
 - b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
 - c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the Act;

d. The ability of the department or the administrator to obtain information from the facility pursuant to Section 114 of the Act. *567 IAC 22.108 (18)*

G26. Severability

The provisions of this permit are severable and if any provision or application of any provision is found to be invalid by this department or a court of law, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected by such finding. *567 IAC 22.108 (8)*

G27. Property Rights

The permit does not convey any property rights of any sort, or any exclusive privilege. *567 IAC 22.108 (9)"d"*

G28. Transferability

This permit is not transferable from one source to another. If title to the facility or any part of it is transferred, an administrative amendment to the permit must be sought to determine transferability of the permit. *567 IAC 22.111 (1)"d"*

G29. Disclaimer

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. *567 IAC 22.3(3)"c"*

G30. Notification and Reporting Requirements for Stack Tests or Monitor Certification

The permittee shall notify the department's stack test contact in writing not less than 30 days before a required test or performance evaluation of a continuous emission monitor is performed to determine compliance with an applicable requirement. For the department to consider test results a valid demonstration of compliance with applicable rules or a permit condition, such notice shall be given. Such notice shall include the time, the place, the name of the person who will conduct the test and other information as required by the department. Unless specifically waived by the department's stack test contact, a pretest meeting shall be held not later than 15 days prior to conducting the compliance demonstration. The department may accept a testing protocol in lieu of a pretest meeting. A representative of the department shall be permitted to witness the tests. Results of the tests shall be submitted in writing to the department's stack test contact in the form of a comprehensive report within six weeks of the completion of the testing. Compliance tests conducted pursuant to this permit shall be conducted with the source operating in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which the source shall be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the equipment manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the department that the source has been physically altered so that capacity cannot be exceeded, or the department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the department to determine whether such source is in compliance.

Stack test notifications, reports and correspondence shall be sent to:

Stack Test Review Coordinator
Iowa DNR, Air Quality Bureau
7900 Hickman Road, Suite #1
Urbandale, IA 50322
(515) 242-6001

Within Polk and Linn Counties, stack test notifications, reports and correspondence shall also be directed to the supervisor of the respective county air pollution program.

567 IAC 25.1(7)"a", 567 IAC 25.1(9)

G31. Prevention of Air Pollution Emergency Episodes

The permittee shall comply with the provisions of 567 IAC Chapter 26 in the prevention of excessive build-up of air contaminants during air pollution episodes, thereby preventing the occurrence of an emergency due to the effects of these contaminants on the health of persons.

567 IAC 26.1(1)

G32. Contacts List

The current address and phone number for reports and notifications to the EPA administrator is:

Chief of Air Permits
EPA Region 7
Air Permits and Compliance Branch
901 N. 5th Street
Kansas City, KS 66101
(913) 551-7020

The current address and phone number for reports and notifications to the department or the Director is:

Chief, Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite #1
Urbandale, IA 50322
(515) 242-5100

Reports or notifications to the DNR Field Offices or local programs shall be directed to the supervisor at the appropriate field office or local program. Current addresses and phone numbers are:

Field Office 1

909 West Main – Suite 4
Manchester, IA 52057
(563) 927-2640

Field Office 2

P.O. Box 1443
2300-15th St., SW
Mason City, IA 50401
(641) 424-4073

Field Office 3

1900 N. Grand Ave.
Spencer, IA 51301
(712) 262-4177

Field Office 4

1401 Sunnyside Lane
Atlantic, IA 50022
(712) 243-1934

Field Office 5

401 SW 7th Street, Suite I
Des Moines, IA 50309
(515) 725-0268

Field Office 6

1023 West Madison Street
Washington, IA 52353-1623
(319) 653-2135

Polk County Public Works Dept.

Air Quality Division
5885 NE 14th St.
Des Moines, IA 50313
(515) 286-3351

Linn County Public Health Dept.

Air Quality Division
501 13th St., NW
Cedar Rapids, IA 52405
(319) 892-6000

Appendices:

Draft Phase II Acid Rain Permit

Acid Rain Permit Application

IDNR Administrative Consent Order 97-AQ-20



AIR QUALITY BUREAU
7900 Hickman Rd., Suite 1
Urbandale, IA 50322

Draft Phase II Acid Rain Permit

Issued to: Sixth Street
Operated by: Alliant Power
ORIS code: 1058
Effective: For five years from the date of issuance.

For the Director of the Department of Natural Resources

Douglas A. Campbell, Supervisor of Operating Permits Section

Date

Acid Rain Permit comprises the following:

- 1) Statement of Basis.
- 2) SO₂ allowances allocated under this permit and NO_x requirements for each affected unit.
- 3) Comments, notes and justifications regarding permit decisions and changes made to the permit application forms during the review process, and any additional requirements or conditions.
- 4) The permit application submitted for this source, as corrected by the Iowa Department of Natural Resources (IDNR), Air Quality Bureau, Operating Permit Section. The owners and operators of the source must comply with the standard requirements and special provisions set forth in the application.

1) Statement of Basis

Statutory and Regulatory Authorities: In accordance with Iowa Code paragraph 455B.133[8"a"], and Titles IV and V of the Clean Air Act, the Iowa Department of Natural Resources (IDNR), Air Quality Bureau, Operating Permit Section issues this permit pursuant to 567 Iowa Administrative Code (IAC) 22.135(455B) to 22.145(455B) and 567 IAC 22.100(455B) to 22.116(455B). The compliance options are approved as proposed in the attached application.

2) SO₂ Allowance Allocations and NO_x Requirements for each affected unit

		2005	2006	2007	2008	2009	2010
	SO ₂ allowances, under Table 2 of 40 CFR part 73.	177*	177*	177*	177*	177*	177*
Unit 2	NO _x limit (Averaging Plan through Dec. 31, 2009)	<p>Pursuant to 40 CFR part 76, The Iowa Department of Natural Resources approves a NO_x compliance plan which includes an emission averaging plan for Unit 2. The NO_x emission averaging plan is effective from January 1, 2005 through December 31, 2009. Under the NO_x averaging plan, this unit's annual average NO_x emission rate for each year, determined in accordance with 40 CFR part 75, shall not exceed the alternative contemporaneous annual emission limitation of 0.38 lbs/mmBtu, and this unit's actual annual heat input shall not be less than the annual heat input of 1,434,836 mmBtu.</p> <p>The other units in the averaging plan are Prairie Creek Unit 3, Milton L. Kapp Unit 2, Sutherland Unit 1, Sutherland Unit 2, Sixth Street Unit 3, Sixth Street Unit 4, Sixth Street Unit 5, Dubuque Unit 1, Dubuque Unit 5, Lansing Unit 1, Lansing Unit 2 and Lansing Unit 3. For each year under the plan, the actual Btu-weighted annual average emission rate for the units in the plan shall be less than or equal to the Btu-weighted annual average emission rate for the same units had they each been operated, during the same period of time, in compliance with the applicable emission limitation in 40 CFR 76.7. If the designated representative demonstrates that the requirement of the prior sentence (as set forth in 40 CFR 76.11(d)(1)(ii)(A) and (B)) is met for a year under the plan, then this unit shall be deemed to be in compliance for that year with its alternative contemporaneous emission limitation and annual heat input limit.</p> <p>On January 1, 2010, under the remainder of the NO_x compliance plan, this unit's annual average NO_x emission rate for each year, determined in accordance with 40 CFR part 75, shall not exceed the applicable emission limitation under 40 CFR 76.7(a)(2), which is 0.46 lbs/mmBtu for dry bottom wall-fired units.</p> <p>In addition to the described NO_x compliance plan, this unit shall comply with all other applicable requirements of 40 CFR Part 76, including the duty to reapply for a NO_x averaging plan and the requirements covering excess emissions.</p>					

SO₂ Allowance Allocations and NO_x Requirements for each affected unit continued

		2005	2006	2007	2008	2009	2010
	SO ₂ allowances, under Table 2 of 40 CFR part 73.	154"	154"	154"	154"	154"	154"
Unit 3	NO _x limit (Averaging Plan through Dec. 31, 2009)	<p>Pursuant to 40 CFR part 76, The Iowa Department of Natural Resources approves a NO_x compliance plan which includes an emission averaging plan for Unit 3. The NO_x emission averaging plan is effective from January 1, 2005 through December 31, 2009. Under the NO_x averaging plan, this unit's annual average NO_x emission rate for each year, determined in accordance with 40 CFR part 75, shall not exceed the alternative contemporaneous annual emission limitation of 0.50 lbs/mmBtu, and this unit's actual annual heat input shall not be more than the annual heat input of 1,621,128 mmBtu.</p> <p>The other units in the averaging plan are Prairie Creek Unit 3, Milton L. Kapp Unit 2, Sutherland Unit 1, Sutherland Unit 2, Sixth Street Unit 2, Sixth Street Unit 4, Sixth Street Unit 5, Dubuque Unit 1, Dubuque Unit 5, Lansing Unit 1, Lansing Unit 2 and Lansing Unit 3. For each year under the plan, the actual Btu-weighted annual average emission rate for the units in the plan shall be less than or equal to the Btu-weighted annual average emission rate for the same units had they each been operated, during the same period of time, in compliance with the applicable emission limitation in 40 CFR 76.7. If the designated representative demonstrates that the requirement of the prior sentence (as set forth in 40 CFR 76.11(d)(1)(ii)(A) and (B)) is met for a year under the plan, then this unit shall be deemed to be in compliance for that year with its alternative contemporaneous emission limitation and annual heat input limit.</p> <p>On January 1, 2010, under the remainder of the NO_x compliance plan, this unit's annual average NO_x emission rate for each year, determined in accordance with 40 CFR part 75, shall not exceed the applicable emission limitation under 40 CFR 76.7(a)(2), which is 0.46 lbs/mmBtu for dry bottom wall-fired units.</p> <p>In addition to the described NO_x compliance plan, this unit shall comply with all other applicable requirements of 40 CFR Part 76, including the duty to reapply for a NO_x averaging plan and the requirements covering excess emissions.</p>					

SO₂ Allowance Allocations and NO_x Requirements for each affected unit continued

		2005	2006	2007	2008	2009	2010
Unit 3	SO ₂ allowances, under Table 2 of 40 CFR part 73.	154*	154*	154*	154*	154*	154*
	NO _x limit (Averaging Plan through Dec. 31, 2009)	<p>Pursuant to 40 CFR part 76, The Iowa Department of Natural Resources approves a NO_x compliance plan which includes an emission averaging plan for Unit 3. The NO_x emission averaging plan is effective from January 1, 2005 through December 31, 2009. Under the NO_x averaging plan, this unit's annual average NO_x emission rate for each year, determined in accordance with 40 CFR part 75, shall not exceed the alternative contemporaneous annual emission limitation of 0.50 lbs/mmBtu, and this unit's actual annual heat input shall not be more than the annual heat input of 1,621,128 mmBtu.</p> <p>The other units in the averaging plan are Prairie Creek Unit 3, Milton L. Kapp Unit 2, Sutherland Unit 1, Sutherland Unit 2, Sixth Street Unit 2, Sixth Street Unit 4, Sixth Street Unit 5, Dubuque Unit 1, Dubuque Unit 5, Lansing Unit 1, Lansing Unit 2 and Lansing Unit 3. For each year under the plan, the actual Btu-weighted annual average emission rate for the units in the plan shall be less than or equal to the Btu-weighted annual average emission rate for the same units had they each been operated, during the same period of time, in compliance with the applicable emission limitation in 40 CFR 76.7. If the designated representative demonstrates that the requirement of the prior sentence (as set forth in 40 CFR 76.11(d)(1)(ii)(A) and (B)) is met for a year under the plan, then this unit shall be deemed to be in compliance for that year with its alternative contemporaneous emission limitation and annual heat input limit.</p> <p>On January 1, 2010, under the remainder of the NO_x compliance plan, this unit's annual average NO_x emission rate for each year, determined in accordance with 40 CFR part 75, shall not exceed the applicable emission limitation under 40 CFR 76.7(a)(2), which is 0.46 lbs/mmBtu for dry bottom wall-fired units.</p> <p>In addition to the described NO_x compliance plan, this unit shall comply with all other applicable requirements of 40 CFR Part 76, including the duty to reapply for a NO_x averaging plan and the requirements covering excess emissions.</p>					

SO₂ Allowance Allocations and NO_x Requirements for each affected unit continued

		2005	2006	2007	2008	2009	2010
	SO ₂ allowances, under Table 2 of 40 CFR part 73.	77*	77*	77*	77*	77*	77*
Unit 4	NO _x limit (Averaging Plan through Dec. 31, 2009)	<p>Pursuant to 40 CFR part 76, The Iowa Department of Natural Resources approves a NO_x compliance plan which includes an emission averaging plan for Unit 4. The NO_x emission averaging plan is effective from January 1, 2005 through December 31, 2009. Under the NO_x averaging plan, this unit's annual average NO_x emission rate for each year, determined in accordance with 40 CFR part 75, shall not exceed the alternative contemporaneous annual emission limitation of 0.45 lbs/mmBtu, and this unit's actual annual heat input shall not be less than the annual heat input of 936,813 mmBtu.</p> <p>The other units in the averaging plan are Prairie Creek Unit 3, Milton L. Kapp Unit 2, Sutherland Unit 1, Sutherland Unit 2, Sixth Street Unit 2, Sixth Street Unit 3, Sixth Street Unit 5, Dubuque Unit 1, Dubuque Unit 5, Lansing Unit 1, Lansing Unit 2 and Lansing Unit 3. For each year under the plan, the actual Btu-weighted annual average emission rate for the units in the plan shall be less than or equal to the Btu-weighted annual average emission rate for the same units had they each been operated, during the same period of time, in compliance with the applicable emission limitation in 40 CFR 76.7. If the designated representative demonstrates that the requirement of the prior sentence (as set forth in 40 CFR 76.11(d)(1)(ii)(A) and (B)) is met for a year under the plan, then this unit shall be deemed to be in compliance for that year with its alternative contemporaneous emission limitation and annual heat input limit.</p> <p>On January 1, 2010, under the remainder of the NO_x compliance plan, this unit's annual average NO_x emission rate for each year, determined in accordance with 40 CFR part 75, shall not exceed the applicable emission limitation under 40 CFR 76.7(a)(2), which is 0.46 lbs/mmBtu for dry bottom wall-fired units.</p> <p>In addition to the described NO_x compliance plan, this unit shall comply with all other applicable requirements of 40 CFR Part 76, including the duty to reapply for a NO_x averaging plan and the requirements covering excess emissions.</p>					

SO₂ Allowance Allocations and NO_x Requirements for each affected unit continued

		2005	2006	2007	2008	2009	2010
	SO ₂ allowances, under Table 2 of 40 CFR part 73.	308*	308*	308*	308*	308*	308*
Unit 5	NO _x limit (Averaging Plan through Dec. 31, 2009)	<p>Pursuant to 40 CFR part 76, The Iowa Department of Natural Resources approves a NO_x compliance plan which includes an emission averaging plan for Unit 5. The NO_x emission averaging plan is effective from January 1, 2005 through December 31, 2009. Under the NO_x averaging plan, this unit's annual average NO_x emission rate for each year, determined in accordance with 40 CFR part 75, shall not exceed the alternative contemporaneous annual emission limitation of 0.56 lbs/mmBtu, and this unit's actual annual heat input shall not be more than the annual heat input of 2,505,658 mmBtu.</p> <p>The other units in the averaging plan are Prairie Creek Unit, Milton L. Kapp Unit 2, Sutherland Unit 1, Sutherland Unit 2, Sixth Street Unit 2, Sixth Street Unit 3, Sixth Street Unit 4, Dubuque Unit 1, Dubuque Unit 5, Lansing Unit 1, Lansing Unit 2 and Lansing Unit 3. For each year under the plan, the actual Btu-weighted annual average emission rate for the units in the plan shall be less than or equal to the Btu-weighted annual average emission rate for the same units had they each been operated, during the same period of time, in compliance with the applicable emission limitation in 40 CFR 76.7. If the designated representative demonstrates that the requirement of the prior sentence (as set forth in 40 CFR 76.11(d)(1)(ii)(A) and (B)) is met for a year under the plan, then this unit shall be deemed to be in compliance for that year with its alternative contemporaneous emission limitation and annual heat input limit.</p> <p>On January 1, 2010, under the remainder of the NO_x compliance plan, this unit's annual average NO_x emission rate for each year, determined in accordance with 40 CFR part 75, shall not exceed the applicable emission limitation under 40 CFR 76.7(a)(2), which is 0.46 lbs/mmBtu for dry bottom wall-fired units.</p> <p>In addition to the described NO_x compliance plan, this unit shall comply with all other applicable requirements of 40 CFR Part 76, including the duty to reapply for a NO_x averaging plan and the requirements covering excess emissions.</p>					

* The number of allowances allocated to Phase II affected units by U.S. EPA in 40 CFR part 73 Table 2 (Revised September 28, 1998). In addition, the number of allowances actually held by an affected source in a unit account may differ from the number allocated by U.S. EPA. Neither of the aforementioned conditions necessitate a revision to the unit SO₂ allowance allocations identified in this permit (See 40 CFR 72.84).

3) Comments, Notes and Justifications:

Renewal of the Phase II SO₂ and NO_x permit.

The NO_x Averaging Plan portion of this Phase II Permit will cover the period from January 1, 2005 through December 31, 2009 (IDNR). On January 1, 2010 the NO_x emission limit changes to the Revised NO_x emission limitations for Group 1, Phase II boilers (40 CFR 76.7). An application for a new averaging plan must be submitted no later than January 1, 2010 (See 40 CFR 76.11(b)(1)) in lieu of complying with the Revised NO_x emission limitations for Group 1, Phase II boilers (40 CFR 76.7).

4) Permit Application: Attached.



United States
Environmental Protection Agency
Acid Rain Program

OMB No. 2060-0258

Acid Rain Permit Application

For more information, see instructions and refer to 40 CFR 72.30 and 72.31

This submission is: ☐ New ☐ Revised ☒ Renewal

STEP 1

Identify the source by
plant name, State, and
ORIS code.

Sixth Street Generating Station	IA	1058
Plant Name	State	ORIS Code

STEP 2

Enter the unit ID#
for every affected
unit at the affected
source in column "a."
For new units, enter the
requested information in
columns "c" and "d."

a	b	c	d
Unit ID#	Unit Will Hold Allowances in Accordance with 40 CFR 72.9(c)(1)	New Units Commence Operation Date	New Units Monitor Certification Deadline
2	Yes		
3	Yes		
4	Yes		
5	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		

Sixth Street Generating Station
Plant Name (from Step 1)

Acid Rain - Page 2

STEP 3

Read the
standard
requirements

Permit Requirements

- (1) The designated representative of each affected source and each affected unit at the source shall:
- (i) Submit a complete Acid Rain permit application (including a compliance plan) under 40 CFR part 72 in accordance with the deadlines specified in 40 CFR 72.30; and
 - (ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit;
- (2) The owners and operators of each affected source and each affected unit at the source shall:
- (i) Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the permitting authority; and
 - (ii) Have an Acid Rain Permit.

Monitoring Requirements

- (1) The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
- (3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

Sulfur Dioxide Requirements

- (1) The owners and operators of each source and each affected unit at the source shall:
- (i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)), or in the compliance subaccount of another affected unit at the same source to the extent provided in 40 CFR 73.35(b)(3), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and
 - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
- (3) An affected unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
- (i) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or
 - (ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3).
- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

STEP 3,
Cont'd.

Nitrogen Oxides Requirements The owners and operators of the source and each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

Excess Emissions Requirements

- (1) The designated representative of an affected unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.
- (2) The owners and operators of an affected unit that has excess emissions in any calendar year shall:
 - (i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
 - (ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

Recordkeeping and Reporting Requirements

- (1) Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:
 - (i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
 - (ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.
 - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,
 - (iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
- (2) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

Liability

- (1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
- (2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
- (3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
- (4) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.

Sixth Street Generating Station
Plant Name (from Step 1)

Acid Rain - Page 4

Step 3,
Cont'd.

Liability, Cont'd

- (5) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.
- (6) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans) and 40 CFR 76.11 (NO_x averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one affected unit shall not be liable for any violation by any other affected unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.
- (7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities

No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:

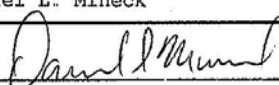
- (1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;
- (2) Limiting the number of allowances a unit can hold; *provided*, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Act;
- (3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;
- (4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
- (5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

STEP 4

Read the
certification
statement,
sign, and
date

Certification

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name	Daniel L. Mineck	
Signature		Date 3-21-02

EPA Form 7610-16 (rev 10-01)



Phase II NO_x Averaging Plan

For more information, see instructions and refer to 40 CFR 76.11

Page 1

This submission is: ☐ New ☒ Revised

Page 1 of 3

STEP 1

Identify the units participating in this averaging plan by plant name, State, and boiler ID# from NADB. In column (a), fill in each unit's applicable emission limitation from 40 CFR 76.5, 76.6, or 76.7. In column (b), assign an alternative contemporaneous annual emissions limitation (ACEL) in lb/mmBtu to each unit. In column (c), assign an annual heat input limitation in mmBtu to each unit. Continue to page 3 if necessary.

Plant Name	State	ID#	(a) Emission Limitation	(b) ACEL	(c) Annual Heat Input Limit
Prairie Creek	IA	3	0.46	0.49	4077211
Sutherland	IA	1	0.46	0.51	2582461
Sutherland	IA	2	0.46	0.46	2677905
Sixth Street	IA	2	0.46	0.38	1434836
Sixth Street	IA	3	0.46	0.50	1621128
Sixth Street	IA	4	0.46	0.45	936813
Sixth Street	IA	5	0.46	0.56	2505658
Dubuque	IA	1	0.46	0.67	2644457
Dubuque	IA	5	0.46	0.92	1812316

STEP 2

Use the formula to enter the Btu-weighted annual emission rate averaged over the units if they are operated in accordance with the proposed averaging plan and the Btu-weighted annual average emission rate for the same units if they are operated in compliance with 40 CFR 76.5, 76.6, or 76.7. The former must be less than or equal to the latter.

Btu-weighted annual emission rate averaged over the units if they are operated in accordance with the proposed averaging plan

Btu-weighted annual average emission rate for same units operated in compliance with 40 CFR 76.5, 76.6 or 76.7

$$.450 \leq .456$$

$$\frac{\sum_{i=1}^n (R_{Li} \times HI_i)}{\sum_{i=1}^n HI_i} \leq \frac{\sum_{i=1}^n [R_{Li} \times HI_i]}{\sum_{i=1}^n HI_i}$$

Where,

- R_{Li} = Alternative contemporaneous annual emission limitation for unit i, in lb/mmBtu, as specified in column (b) of Step 1;
- R_{Li} = Applicable emission limitation for unit i, in lb/mmBtu, as specified in column (a) of Step 1;
- HI_i = Annual heat input for unit i, in mmBtu, as specified in column (c) of Step 1;
- n = Number of units in the averaging plan

Plant Name (from Step 1)

NO_x Averaging - Page 3

STEP 1

Continue the identification of units from Step 1, page 1, here.

[illegible]

Plant Name (from Step 1)

NO_x Averaging - Page 2

STEP 3

Mark one of the two options and enter dates.

☒ This plan is effective for calendar year 2005 through calendar year 2009 unless notification to terminate the plan is given.

☐ Treat this plan as ☐ identical plans, each effective for one calendar year for the following calendar years: _____ and _____ unless notification to terminate one or more of these plans is given.

STEP 4

Read the special provisions and certification, enter the name of the designated representative, and sign and date.

Special Provisions

Emission Limitations

Each affected unit in an approved averaging plan is in compliance with the Acid Rain emission limitation for NO_x under the plan only if the following requirements are met:

- (i) For each unit, the unit's actual annual average emission rate for the calendar year, in lb/mmBtu, is less than or equal to its alternative contemporaneous annual emission limitation in the averaging plan, and
- (a) For each unit with an alternative contemporaneous emission limitation less stringent than the applicable emission limitation in 40 CFR 76.5, 76.6, or 76.7, the actual annual heat input for the calendar year does not exceed the annual heat input limit in the averaging plan,
- (b) For each unit with an alternative contemporaneous emission limitation more stringent than the applicable emission limitation in 40 CFR 76.5, 76.6, or 76.7, the actual annual heat input for the calendar year is not less than the annual heat input limit in the averaging plan, or
- (ii) If one or more of the units does not meet the requirements of (i), the designated representative shall demonstrate, in accordance with 40 CFR 76.11(d)(1)(ii)(A) and (B), that the actual Btu-weighted annual average emission rate for the units in the plan is less than or equal to the Btu-weighted annual average rate for the same units had they each been operated, during the same period of time, in compliance with the applicable emission limitations in 40 CFR 76.5, 76.6, or 76.7.
- (iii) If there is a successful group showing of compliance under 40 CFR 76.11(d)(1)(ii)(A) and (B) for a calendar year, then all units in the averaging plan shall be deemed to be in compliance for that year with their alternative contemporaneous emission limitations and annual heat input limits under (i).

Liability

The owners and operators of a unit governed by an approved averaging plan shall be liable for any violation of the plan or this section at that unit or any other unit in the plan, including liability for fulfilling the obligations specified in part 77 of this chapter and sections 113 and 411 of the Act.

Termination

The designated representative may submit a notification to terminate an approved averaging plan, in accordance with 40 CFR 72.40(d), no later than October 1 of the calendar year for which the plan is to be terminated.

Certification

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name	<u>Timothy R. Behnington</u>	
Signature	<u>[Signature]</u>	Date <u>12/9/04</u>

cw

IOWA DEPARTMENT OF NATURAL RESOURCES
ADMINISTRATIVE ORDER

IN THE MATTER OF:	ADMINISTRATIVE CONSENT ORDER
IES UTILITIES, INC.	NO. 97-AQ- 20

TO: IES Utilities, Inc.
c/o Daniel Siegfried, Legal Department
200 First Street S.E.
P.O. Box 351
Cedar Rapids, Iowa 52406-0351

I. SUMMARY

This consent order is entered into between IES Utilities Inc. (IES) and the Iowa Department of Natural Resources (DNR) for the purpose of resolving the issue of IES's contribution of sulfur dioxide (SO₂) to three exceedances of the National Ambient Air Quality Standard (NAAQS) in January, February and March 1996.

II. STATEMENT OF FACTS

1. DNR has determined that three exceedances of the SO₂ National Ambient Air Quality 24-hour standard have occurred in Cedar Rapids, Iowa. On January 28, 1996, a SO₂ monitor located at the Scottish Rite Temple at 616 A Avenue N.E. in Cedar Rapids indicated a reading of 0.15 parts per million (ppm); on February 28, 1996, the same monitor rendered a reading of 0.20 ppm; and on March 2, 1996, the same monitor rendered a reading of 0.27 ppm. The level of the 24-hour standard is 0.14 ppm, not to be exceeded more than once per calendar year.

2. IES is an Iowa Corporation with its principal place of business at 200 First Street S.E. in Cedar Rapids, Iowa. IES is an investor-owned public gas and electric utility. Modeling has established that IES's Sixth Street Generating Station, a major stationary source, is a significant contributor to the SO₂ levels monitored. The monitor is located near IES's Sixth Street Generating Station (Sixth Street).

3. Sixth Street, located at 509 6th Street N.E., and Prairie Creek Generating Station, located at 3300 C Street S.W., are coal, gas and resifil fired generating stations located in Cedar Rapids, Iowa, providing electrical and steam service to customers in the Cedar Rapids area. Resifil, currently burned at Sixth Street, is a combustible fuel derived from the furfural manufacturing process.

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4. In May 1995, the United States Environmental Protection Agency, (EPA) published its Sulfur Dioxide Network Design Review for Cedar Rapids, Iowa, (Design Review), indicating that certain areas of Cedar Rapids might be nonattainment for SO₂ and recommending the addition and relocation of monitors in and around Cedar Rapids.

5. Upon review of EPA's Design Review, IES began to analyze various options to further minimize any contribution of SO₂ emissions from its two Cedar Rapids generating facilities, Sixth Street and Prairie Creek. IES also met with DNR and the Linn County Health Department (LCHD), and other facilities in the Cedar Rapids area, for the purpose of reviewing EPA's Design Review and strategizing on resolution of the issues raised.

6. IES has considered several options in an attempt to avoid the need for the Cedar Rapids area to be designated as nonattainment for SO₂. The option to close the Sixth Street facility was rejected by IES for the following reasons: "This has been determined not to be a viable option at this time. Thermal energy costs comprise a significant portion of the production costs of major grain processing companies in the downtown Cedar Rapids area. A sudden increase in energy pricing could have significant impact and employment consequences for our major steam customers. IES believes that we must keep Sixth Street station operational to provide these customers with economic thermal energy (steam) in the short term while we search for a long term economic and environmentally balanced energy to fill these customers' needs."

7. IES also has considered the option of initiating an SO₂ emissions minimization plan. IES asserts that this option would allow Sixth Street to continue to provide electricity, service to its steam customers, and reduce SO₂ emissions. Computer modeling performed by IES concluded that SO₂ emissions at a rate of 667 lbs./ hour or less on a 24-hour rolling average basis from Sixth Street would not result in an exceedance of the NAAQS for SO₂. IES asserts that by changing fuel choices to those which have lower sulfur content, SO₂ emissions could be reduced while maintaining the economic viability of the facility. A test burn of a new fuel blend was conducted between November 25 and December 23, 1996, which confirmed that SO₂ emissions did not result in any exceedance of the SO₂ NAAQS and could be managed below the site limit of 667 lbs./hour on a 24-hour rolling average basis. Updated modeling, a copy of which has been provided to DNR by IES, demonstrates attainment for the area using this plan.

8. This Administrative Consent Order is entered into between DNR and IES for the purpose of resolving IES's contribution to the SO₂ National Ambient Air Quality Violations monitored in Cedar Rapids, Iowa.

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III. CONCLUSIONS OF LAW

1. This order is issued pursuant to the provisions of Iowa Code sections 455B.134(9) and 455B.138(1), which authorize the Director to issue any administrative orders necessary to secure compliance with or prevent a violation of Iowa Code chapter 455B, Division II, and the rules promulgated and permits issued pursuant thereto, and to prevent, abate, and control air pollution.

2. The emission units located at IES in Cedar Rapids, Iowa, are "air contaminant sources" as defined by Iowa Code section 455B.131(2) and "stationary sources" as defined by 567 Iowa Administrative Code (I.A.C.) 20.2.

3. According to 567 I.A.C. 28.1, the ambient air quality standards for the State of Iowa shall be the National Primary and Secondary Ambient Air Quality Standards (NAAQS) located at 40 C.F.R. Part 50, as amended through July 1, 1987.

4. The primary 24-hour ambient air quality standard for SO₂ is 0.14 parts per million, according to the provisions of 40 CFR Part 50. The 24-hour maximum allowable concentration should not be exceeded more than once per calendar year. The concentrations monitored in this case constitute a violation of this standard.

5. An exceedance of the NAAQS for SO₂ constitutes "air pollution" as defined by Iowa Code section 455B.131(3).

6. In accordance with the provisions of Iowa Code section 455B.134(9), the Director shall issue orders consistent with the rules to cause the abatement or control of air pollution.

7. According to the provisions of 567 I.A.C. 22.1(1) and 567 I.A.C. 22.1(3), the owner or operator of a stationary source shall obtain a permit to install or alter equipment or control equipment. Any modifications occurring as a result of this consent order shall require a construction permit or shall meet the requirements of a construction permit exemption contained in the provisions of 567 I.A.C. 22.1(2).

IV. ORDER

THEREFORE, DNR orders and IES Utilities Inc. agrees to do the following:

With regard to the Sixth Street Generating Station:

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1. Effective on the date this order is signed by both parties, IES agrees to limit the site emissions from the Sixth Street Generating Station boiler stacks to a maximum emission rate of 84 grams/sec (667 lbs./hour) SO₂ on a twenty-four hour rolling average basis. The value of 84 grams/sec (667 lbs./hour) SO₂ reflects the modeling requirements for demonstrating and maintaining the SO₂ NAAQS.
2. By no later than December 1, 1997, IES shall have in place at the Sixth Street Generating Station monitoring and data collection equipment capable of recording total site hourly and twenty-four hour rolling average SO₂ emission information.
3. By no later than December 1, 1997, IES shall begin maintaining hourly and twenty-four hour rolling average records for its Sixth Street Generating Station which will verify compliance with the twenty-four hour rolling average SO₂ emission limit. These records shall include the data required pursuant to paragraph 2 above and 40 CFR Part 75 for Continuous Emissions Monitoring.

With regard to the Prairie Creek Generating Station:

1. IES shall install a combined stack for Units one (1) and two (2) to a height of three hundred and twenty-seven (327) feet above ground level. IES shall extend the existing boiler stack for Unit three (3) to a height of 200 feet above ground level. Unit four (4) shall utilize its existing stack with no changes. By no later than April 15, 1998, IES shall submit to DNR or LCHD, as appropriate, applications for any required air quality construction permits. The construction shall be completed within 24 months of issuance of the necessary permits.
2. By no later than July 1, 1998, IES shall limit the unit emissions from its Prairie Creek Generating Station Unit three (3) to a maximum emission rate of 62 g/s (495.9 lbs./hr) SO₂, and from its Unit four (4) boiler stack to a maximum emission rate of 162 g/sec (1289.3 lbs./hour) SO₂ on a twenty-four hour rolling average basis.
3. By no later than December 1, 1997, IES shall have in place on Units three (3) and four (4) at Prairie Creek Generating Station monitoring and data collection equipment capable of recording total unit hourly and twenty-four hour rolling average SO₂ emission information.
4. By no later than December 1, 1997, IES shall begin maintaining hourly and twenty-four hour rolling average records for its Units three (3) and four (4) at the Prairie Creek Generating Station. These records shall include the data required under Paragraph 3 and 40 CFR Part 75 for Continuous Emissions Monitoring.

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5. By no later than July 1, 1998, IES shall limit the sulfur content of the fuels burned in Units one (1) and two (2) so as to limit the emissions from Units 1 and 2 to 5.0 lbs. SO₂/MMBtu of heat input. For Units one (1) and two (2), IES shall maintain documentation of station fuel burns via its monthly filed Federal Energy Regulatory Commission (FERC) Form 423. Also for Units one (1) and (2), IES shall collect and maintain Coal Supplier analysis report documentation, including collection and preparation of samples to follow latest applicable standards published by the American Society for Testing and Materials (ASTM).

V. WAIVER OF APPEAL RIGHTS


This order is entered into knowingly and with the consent of IES Utilities Inc. For that reason, IES Utilities Inc. waives its right to appeal this order or any part thereof.

VI. NONCOMPLIANCE

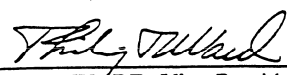
Failure to comply with this order may result in the imposition of administrative penalties or referral to the Attorney General's office to obtain injunctive relief and civil penalties pursuant to the provisions of Iowa Code section 455B.146. IES reserves the right to contest, on all bases available in law or equity, any such actions for penalties or damages.

Any questions regarding this consent order should be directed to:

Anne Preziosi
Iowa Department of Natural Resources
Henry A. Wallace Building
900 East Grand Avenue
Des Moines, Iowa 50319-0034


LARRY J. WILSON, DIRECTOR
IOWA DEPARTMENT OF NATURAL RESOURCES

Dated this 20 day of
November, 1997.


PHILIP D. WARD, Vice-President and
General Manager, GENCO
for IES UTILITIES INC.

Dated this 19th day of
NOVEMBER, 1997.